DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. XIV. BOSTON, APRIL, 1862. NO. 4.

NOURSE, EATON & TOLMAN, PROPRIETORS.
OFFICE....100 WASHINGTON STREET.

SIMON BROWN EDITOR.
HENRY F. FRENCH, ASSOCIATE EDITOR.

CALENDAR FOR APRIL.

APRIL is supposed by scholars to have derived its name from the Latin word *Aperire*, signifying to open, because in those countries where our months were named, the buds open themselves at this season of the year. They also tell us that Charlemagne, in his new calendar, called it *grass month*, the name still given to it by the Dutch. It is possible that if these scholars, Charlemagne and the Dutch, had lived in New England, the christening of their *Aperire*, or *grass month*, would have been postponed at least one new moon.

To be sure, the buds do open themselves somewhat, and the grass starts more or less before the last blast on the horn of April is blown, but with us both buds and grass often have occasion to repent of their rashness and haste. Only last year, (1861,) in the first part of the month, the earth was covered a foot deep with snow, where it lay as it fell; and from two to six feet, where drifted by the wind. Near our own residence there was a drift about three feet deep, extending for rods, and terminating in a pile, against an embankment wall, measuring eight feet in height. Highways were blocked up, and passenger trains on the railroads delayed. This, we know, was an unusual storm for April, but unusual chiefly in respect to the depth of the snow. Storm and sunshine are the order of the month. We must dodge the one as well as we can, and improve the other the best we know how. There is much work to be done in April. While the Italian, French, and even the English farmer, have three or four months of veritable spring weather, we have but two at best; and old winter claims a portion of one of these, and in some parts of New England enforces her claims for the lion's share of April.

Much as there is to do, however, in so little time, don't drive the boys too hard at first. After studying in a warm room for three or four months, it is rather tough—we remember it very well—to face these cold winds, and to take hold of outdoor work in earnest. It may encourage some of these tender-handed school-boys to be told that it is not the sons of New England alone that complain of similar hardship. According to one of the oldest of the ancient poets, those farmers who dwelt in the comparatively warm climate of the region bordering on the Mediterranean Sea made a great fuss about the cold and hardship of plowing time. They went so far as actually to cry,—"bawl," the Yankees would call it,—while plowing the ground and sowing the seed. It seems that the poor fellows got bravely over this "crying spell" before harvest, for they are represented as quite jolly at reaping time. We make a brief extract from the poem alluded to, as some of our readers may be glad to preserve even a small portion of perhaps the most ancient agricultural poem extant:

> "They that sow in tears
> Shall reap in joy:
> He that goeth forth and weepeth,
> Bearing precious seed,
> Shall doubtless come again with rejoicing,
> Bringing his sheaves with him."

We quote from the same author, whose writings were probably the models of the sayings of Franklin's "Poor Richard," one of the old saws with which parents, four thousand years ago, used to encourage their sons to brave the chills of April:

> "The sluggard will not plow by reason of the cold;
> Therefore he shall beg in harvest, and have nothing."

There is yet a little patch of evening left for the boys to read. They may have left school for the season, or for life, but their education is not finished. Let them have a few moments with their books, and papers, and thoughts, especially in these days,

"For we are living, we are dwelling, in a grand and awful time,
In an age on ages telling—to be living is sublime."

A singular notion seems to have been harbored in many people's heads, until it is nearly condensed into a proverb, something like: *Learning can't be lost.* Therefore, when the school closes, down go the lids of the books of their children, to be raised only when school again opens. Yet these same people will sometimes claim to have forgotten more in a year than most know at one time. The fact is, we forget so fast that almost constant practice is necessary to keep our knowledge of any branch of science or art available. For this reason it may be cheaper to let the boys review their lessons occasionally, evenings and stormy days, than to neglect study entirely till school time comes round again.

The young folks generally intend to have a little fun on the first day of this month, which is called *"April Fools' Day,"* not only in New England, but wherever the English language is spoken. The New American Encyclopædia says that the custom of sending people on empty errands, and laughing at them, is common in every country of Europe, and wherever the European races have settled on this continent. Two accounts are given of its origin. The Oriental scholars say that it is derived from the *huli* feast among the Hindoos, where a similar custom prevails. The other opinion is, that it comes from a celebration of Christ's being sent about to and fro between Herod, Pilate and Caiaphas. In France, the foolish person is called *poisson d'avril*, meaning a silly fish, like a mackerel, easily caught. In Scotland, he is called *gowk*, which means a cuckoo.

By the first of this month, farmers in this section hope to start the plow. This is a most important branch of our business, and we submit as a proper subject for special thought and study during the month of April, the *principles and practice of plowing*—the whys and wherefores, as well as the how.

COAL OILS.—The New York correspondent of the Boston *Commercial Bulletin* says: "The kerosene and coal oil trade is very much depressed, the supply being largely in excess of the demand. The refined oil now sells at from 28 to 30 cents, which, at the present rate for crude stock, will not pay a profit to the refiners, and the works in this vicinity are being very generally suspended. Some parties are buying up and storing large quantities of the manufactured oil, in anticipation of an excise duty of ten cents per gallon, being levied upon the manufacture by the new revenue act about to be passed upon by Congress. Enormous quantities of the article are stored in this vicinity, and the receipts of both crude and refined oil from the wells and Western factories are very heavy."

THE CATTLE DISEASE.

We are glad that the Board of Agriculture has thought it proper to call attention to this matter. There are those who believe the disease is not contagious. We have *seen enough* to convince us that it is, and that there is imminent danger of its sweeping with destructive power over the whole State. It is more than folly to neglect its encroachments. It is among us *now*, beyond doubt or cavil, and every prudent measure should be adopted to arrest it, whether it is contagious or not. If those who object to action in relation to it would visit diseased herds, examine animals when slaughtered, and make careful inquiries into the nature of the disease, they would be quite likely to be more consistent in their opposition to investigation and the measures to prevent its extension.

REPORT ON THE CATTLE DISEASE.

The undersigned, a Committee appointed by the Board of Agriculture to prepare a statement of facts for publication in relation to the cattle disease, would respectfully report that—

Having good reasons to fear that the disease known as pleuro-pneumonia (so fatal in its ravages among the neat stock of North Brookfield and vicinity in the years 1859 and 1860) has again made its appearance in several towns in the county of Norfolk, they feel it the duty of this Board to warn the farmers and others, owners of neat stock in the Commonwealth, that the time has arrived for them to take every precaution to prevent the spread of this scourge; and in view of its contagious nature they would urge the necessity of the greatest care being taken by all interested in purchasing or permitting strange cattle to come in contact with their herds.

The disease now claiming our attention made its appearance in the town of Quincy last April, breaking out in two herds nearly simultaneously. Eight animals from one of the herds were sold to a person in Randolph, in the month of September, for eighty-five dollars for the lot. One of these animals died before reaching the home of the owner, and three more shortly after. The other four have been lost sight of. One herd in Milton, and also one in Dorchester, have been affected for some months. Four animals from one of these herds, which had been sick during the summer of last year, but had apparently recovered, were taken to Brighton in the fall and sold. Four of the other herd have since died or been killed—all presenting a seriously diseased appearance. On examination by the veterinarians conversant with the Brookfield complaint, they pronounced it identical, so far as they could judge. There are four or five animals still left of this herd, some of which are either sick or showing symptoms of contagion. There are also other cases which have not been examined—the Selectmen of the towns waiting the action of the Legislature in passing a law authorizing a new commission. The law has now been passed, and the commissioners appointed, and we would respectfully urge upon the gentlemen composing that commission the great importance of immediate measures to investigate the disease, and, if necessary, applying the remedies placed by the law in their hands, that the ravages of this fearful pest, (which there is little doubt is identical with the Brookfield disease, and which can be traced to that neighborhood,) may be stayed.

There still being doubters in the community as to

the existence of contagious pleuro-pneumonia, earnest attention is called to the thorough and convincing report of the first Board of Commissioners, with accompanying documents, published in the report of the Secretary of the Board of Agriculture for 1860.

We believe that no person, however prejudiced he may have been, who has been present at the examinations of affected animals, has failed to become convinced of the contagiousness of the disease; and it would seem impossible that any one can doubt this fact who will take the trouble to examine the various reports that have been made in Europe and in this country on the subject. (Signed)

HENRY H. PETERS, of Southborough,
PHINEAS STEDMAN, of Chicopee,
FREEMAN WALKER, of North Brookfield,
Boston, Feb. 27, 1862. *Committee.*

FACTS AND FANCIES.

SUGAR FOR THE MILLION.—Everybody likes sugar—and sugar likes everybody, taken in proper quantity. It is both nutritious and healthful, to say nothing of its palatableness in coffee and tea, puddings and pies. It was once supposed to be a *luxury*, merely, but that time has gone by, and the common opinion now is, that it is one of the *necessities* of life.

We are glad to see attention turned to its production in the free States. Illinois produced it in large quantity the last season, and is undoubtedly capable of securing quadruple the amount it has already made.

Speaking of the cultivation of sugar cane (Sorghum,) in the Northwestern States, the Chicago *Tribune* says: "Next to the cotton crop, there is no agricultural product that at present more certainly demands the attention of our government, as well as the tillers of the soil."

AN AGRICULTURAL MISSIONARY.—The *Journal d'Agriculture Pratique*, which we receive regularly from Paris, states that an agricultural society in Prussia has appointed a person to visit the agricultural districts, make himself acquainted with leading men as well as farmers, and gather information on every subject in connection with the details of farming. This is a step in the right direction, and one that may be imitated with profit, we think, by every agricultural society in New England.

LOOK OUT FOR SHRUBBERY AND FRUIT TREES.—The crust that now lies upon the snow will be quite likely to break down a great deal of shrubbery and the lower limbs of pear trees, unless some pains is taken to prevent it. It now adheres very closely to many branches, and as the snow melts (for it melts from below as well as from above) it will drag the branches down and break them. We saw one half of a beautiful pear tree taken off in this way two winters ago. The trees should be visited, and with a shovel, or by some other means, the crust should be broken and removed from the limbs. It is a nice operation, and a careful hand should attend to it.

CURE FOR DYSPEPSIA.—A Philadelphia gentleman states that, "in a fit of despondency—I resolved to try bran bread and good sweet milk. I carried my resolution into effect, and the happy result is, that I am now perfectly well. I have regained my flesh and strength. I sleep as soundly as a rock, and feel as happy as a lark, under this new state of affairs." He takes but one cup of coffee, eats few vegetables, and eschews pastry and puddings.

SWORE THREE TIMES BEFORE HE CROWED.—A little girl went to camp-meeting, and when she got home, she said the sisters in the various tents told her a good many things, and asked her questions about the Bible. On being pressed to state what they told her, she said one thing they told her was about Peter, "who swore three times before he crowed."

For the New England Farmer.

MAKING SUGAR.

MR. EDITOR:—There is no season of the year so profitable to the farmer as in the time of making sugar. Let an estimate be made, and see: In a good season a second growth maple will make about 4½ pounds of sugar. Five hundred trees, at 4½ pounds per tree, will give 2250 pounds, which at 10 cents per pound, would give $225.

COST.—One man can tend 500 trees with ease, say,

One man 1 month	$15,00
10 cords of wood, at $3 per cord	30,00
Other necessary expenses	20,00
Total	$65,00

which, deducted from the income, leaves $160 as profit for one month's time.

I think my figures are not far from right. Every one that can tap a tree ought to do so, because we must be independent of all duties as far as possible. To make sugar you should have a good sap-house and a convenient wash-shed, an arch and a pan. Sap boiled in a pan makes 5 per cent. more sugar than sap boiled in a kettle, and saves 12½ per cent. of wood. The syrup should be boiled as thick as it can be conveniently, and when done down to sugar, it should not be very dry; put it in a tin can made for the purpose, and then drain about the first of May, when you will have maple sugar of the first quality. Tin buckets cost too much to commence with; they are liable to get bruised and cannot be kept from rusting. Bucket-pails are just as good, with half the cost, and last just as long. JOSEPH E. WHITE.

Wallingford, February 10, 1862.

STEEPING BARLEY BEFORE SOWING.—A writer in the *Homestead* recommends that seed barley should be steeped before sowing in a solution of copperas or blue vitrol, the same as is often done for wheat, and then rolled in plaster enough to dry it. He says it has the effect of giving it a rapid start, and makes it come up strong and dark colored. He thinks the benefit equal to ten extra loads of manure per acre.

LEGISLATIVE AGRICULTURAL SOCIETY.

REPORTED FOR THE FARMER BY D. W. LOTHROP.

The sixth meeting of the series was held on Monday evening last, at the Representatives' Hall, when the subject for discussion was *Farm Buildings*. The Hon. SIMON BROWN, editor of the *New England Farmer*, was invited to preside.

The chairman thanked the gentlemen for the position, but said he was not fully prepared to discuss the matter. Few things were more important on a farm than the kind and *location* of farm buildings. Buildings should be located as near the centre of the land as practicable, and not many rods apart, where it could be done without too great sacrifices. Where they are already located, we must make the best of it. Some farmers object to this congregation of buildings, as increasing the danger from fire; but the speaker thought this a minor consideration. Others object to the odors from barns by their close proximity to the dwelling. But these can be prevented or overcome by the proper use of muck and other materials as absorbents. Mr. Brown here showed a diagram exhibiting the position of farm buildings as he would have them. They would be attached—first the house, then the kitchen or dairy-room, wood-shed, and carriage-house, following on, and then the barn. The loss in an *extra* and unnecessary travel of *six rods* each time of going to the barn, for 40 years, going and returning ten times each day, would be 5,480 miles, or about 137 miles annually.

Another point in regard to farm buildings—and one heretofore greatly overlooked—is the want of *shelter* for them. If they stand out, in a bleak and dreary landscape, they are seriously affected by the elements that work upon them, viz: the sun, wind, hail and snow. The effect of the sun upon wood-work—where its rays are not softened by a screen of some kind—is quite destructive. The shingles on most of our roofs show it, and the warping of outer boarding may be traced to the same cause. In an unprotected house, the wind is pressed through every opening, bringing cold and dampness, and making an additional cost to keep the room comfortably warm. It is thought that good shingles would scarcely wear away in less than fifty years, provided they could be kept precisely in place all the time—while under the combination of the sun, wind and rain, they hardly last one-third of that time. These effects would be greatly modified, if buildings were partially protected by the presence of trees in their vicinity. It requires but a narrow belt of evergreens to form a complete barrier against the wind. The hemlock is an admirable tree for this purpose. A breadth of ten feet set with that tree or with the Norway spruce alternating, effectually shuts out the winds. The white pine, also, so common among us, is hardy, easily removed, and is as graceful and handsome as the hemlock or spruce. These evergreens are not valuable merely for their beauty of form or the protection which they afford, but partly for the soothing sounds that come from them on a summer night, like the coming and retreating waves on a far-off sea-shore—or the grander music of winter winds through their branches, swelling into sublime anthems of atmospheric power. If they are interspersed with the rock-maple, the graceful white birch, the moosewood or sumac, the effect will be still more pleasing.

The south should be left open. This aspect has few high winds, and the windows looking out upon it may be sufficiently protected from summer suns by a few climbing plants, such as the *Prairie Queen*, or *Baltimore Belle Roses*, the *Scarlet*, *Yellow Monthly*, or the *Red* or *White Tartarian Honeysuckle*, *Chinese Wistaria*, or other climbing plants.

From the foot of these should be a green, well-kept lawn, if it be but twenty feet square, where the children can take their little friends and have a frolic.

In conclusion, he hoped farmers will listen more frequently to the promptings of a refined taste, and do more about their homes with reference to *beauty* as well as utility. They will have a happy influence upon the mind, habits and character; will light up the home with sweet affections, and shed a fragrance over all its duties.

Hon. ALBERT FEARING, of Hingham, being called upon, said he might not be able to throw much light upon the subject, but he thought our farmers should cultivate three things—convenience, economy and beauty. He lived in a house built in 1698, but it was conveniently arranged and good for a farmer. He spoke of barns, and mentioned one of his own, which was 40 by 60 feet; but he wished to speak particularly of sheep barns. Too little attention, he thought, had been paid to sheep. There should be only 25 or 30 in a flock, and they should be kept warm and dry. He described a barn of his for this purpose—20 by 40 feet—and observed that the hay should be where the sheep are, the pens six feet high, and alleys for them on each end. In his, the hay comes from the centre, and there are places for 30 sheep on each side. He also made other statements respecting it, and said it cost $400. He had another barn for sheep and cattle, with a cellar under it, and sheep sheds connected therewith, which he thought not good economy to paint. Also, another one facing the west, 60 by 40 feet, nearly in the centre of thirty-five acres. The cellar is eight feet deep, stoned with granite, and admits of entrance with a cart; it cost from $5000 to $6000, and would admit three standing loads of hay

on the floor. He spoke of tool-houses; said all his buildings were painted in front; thought cattle preferred soft water; has not lost any animals; keeps his yards dry; also his pig-pens, and lets his hogs come out into the sun, which they need; they are healthy, and eat well. If he should change the structure of his buildings, they would be a little lower, with common sheds for sheep between them. We must show the young man that farming can be made profitable, and he thought that sheep culture could be made so, on our poor lands, and those just cleared of wood.

Hon. J. W. PROCTOR, of Danvers, being invited to speak, said he hoped to hear from some of the legislature, as this was their meeting. He alluded to the costly barns which had been spoken of, and said we should inquire what should be the buildings of the smaller and less wealthy farmers. He was on a committee in Essex county, to examine barns, and they found a great want of proper arrangement in their structure. Many were too long, and not sufficiently high. Gen. Sutton had four barns a quarter of a mile from each other, and cut from 100 to 200 acres of hay. Mr. P. thought that barns should be from 70 to 80 feet long and 40 feet wide, being so arranged as to drive in ten feet above and throw the hay down. He alluded to Mr. Newhall, who took a premium for the best barn. The prevalent rage for barn-cellars he deprecated, and said they were not good for the cattle above them, nor necessary for the manufacture or preservation of manure. As to large houses for farmers, he objected to them, but commended cottages, and advised farmers not to waste their money in large buildings.

Mr. BROWN, the chairman, said he thought large houses necessary sometimes—more especially for farmers' clubs.

Mr. CROSBY, of Boston, said he had travelled much, and had owned a farm of 1100 acres; and thought the rule should be, a large barn and small house.

Dr. LORING, of Salem, spoke of barns. A man's taste will guide him as to his house—not so as to his barn. The latter is not an easy thing to build, and he doubted whether there was a model one in the Commonwealth, though there were many very convenient ones. In fact, our farmers cannot afford to build such. He once visited Mr. Leavitt, of Great Barrington, who resided much of his time in New York, but had sent his son into the country to become a farmer, and the young man thought he must have a good barn. He commenced it, but before it got above the foundations, $40,000 were spent. Dr. L. intimated it was a caution. His own barn was 100 feet long, and 40 feet wide; would hold forty cattle and ten horses. Barns should have good cellars, glass windows, &c., and should be convenient for cattle and men, with good facilities for feeding. They should hold large quantities of hay, and he thought well of the old-fashioned barn, where you could drive into one end and out of the other. He alluded to storing hay; thought the platform difficult to load; shifted his timbers on the beams. He ties his cattle with chains, and where they steal from each other, he divides their heads. Chains are easy to cattle, but to an extent troublesome. To give more room behind cattle, he thought 42 feet wide would be better. As to cellars, with proper construction and ventilation of the barn, they are not injurious, but are important in the making of manure. Frost is as injurious to manure as the sun. Dr. L. advocated tight barns in this connection, and said the best hay was from them. He also spoke at some length upon the reported assertion of Mr. Chenery, that the cattle disease, or *pleuro-pneumonia*, was in his case caused by tight barns, and argued earnestly that, under the circumstances, it was impossible to be so.

Hon. JOSIAH QUINCY, Jr., said that in England and on the Continent they do not store their hay, but stack it and feed from the stack. With proper shelter for feeding cattle, he thought we might, to an extent, adopt the plan. His own barn is 70 by 90 feet. Barns that are high are good ventilators. He also alluded to the horse pitch-fork, and observed that with one the work of thirty-five minutes with the hand-fork could be done in seven. On a cold day he would not allow his cattle to come out, but gives them water from within, drawn from a flowing brook, which is always in operation both summer and winter. Mr. Quincy also alluded to his *milk well* into which he suspends milk, and finds no change in the seasons.

Mr. TAYLOR, of Montgomery, said he had a farm of his grandfather, the out-buildings of which were just as they happened. These he had improved. He thought the out-buildings in the villages were well kept, but in the towns of the country they were shocking. The spirit of improvement had been awakened in him by hearing a lecture upon this and kindred subjects, and he called up the painter. His buildings were rough, except the carriage house. But with a new kind of paint an acre of surface was painted for twenty dollars' worth of paint, and thought the improvement was a hundred per cent. He advocated housing carts, and said he had put up a building 18 by 24 feet for this purpose, at a cost of twenty-five or thirty dollars. Under such buildings carts will last twenty-five or thirty years. To a question by the chairman as to the nature of the paint used, its color, cost, &c., he said the base was whiting, with perhaps a little lime and oil, with colors to suit. The cost of what he used was about $20; but with *good* oil would have cost $100 or $120.

Mr. HOWARD said he had examined Gen. Sut-

ton's barns, which were for hay, and this he sold out at a great rate. They were tight, with cellars underneath in nearly all of them. It was strange he should sell his hay.

Mr. WETHERELL hoped barn cellars would be well considered, for he believed that they injured the grain and hay, and he had no doubt a miller could discover much injury to the grain. He advocated barns for cattle, and hay in stacks, and had his doubts as to large barns for the latter. He had heard of a hog-pen that cost $2,000! Mr. W. also slightly touched upon a few other kindred matters before closing.

Mr. QUINCY rose to say that he turned his cattle out every day, probably excepting the severest weather.

Mr. PROCTOR said Mr. Sutton's stock barn was open on the north side; the manure is moved out.

Mr. MOODY, of Enfield, advocated barn cellars, and said his own did not affect the hay. In his stables he sows plaster.

The time for closing having now arrived, Mr. Wetherell moved that the *same subject* be retained for further discussion at the next meeting, which being assented to, the meeting *adjourned*.

For the New England Farmer.

HOW TO RAISE CALVES.

MR. EDITOR:—It is doubtless a very simple matter to raise a good calf, if you allow him to suck the cow six months or more, but except in cases of thorough bred stock, which will command fancy prices, this is too expensive for the majority of New England farmers, and is, in my opinion, a serious injury to the cow.

The opposite extreme of commencing to feed skimmed milk, when a calf is a few days old, I consider equally unprofitable, because good calves are seldom raised in this way, and we can purchase western cattle so cheaply that it does not pay to raise a poor animal, if, indeed, it does under any circumstances.

The object with most of us, I suppose, is, not to raise stock to any great extent specially for beef, for that can be done cheaper where land is worth less for other purposes, but to keep up our stock of cows and working oxen by raising our most promising calves, and to adapt these to our not always over-luxuriant pastures, in the point aimed at, while, at the same time, we must avoid dwarfing the animal to such an extent as to injure its constitution.

The greatest obstacle in the way of substituting skimmed milk, grain, &c., for new milk, is the liability to produce "scouring," and this is so difficult to avoid, that even S. Edwards Todd, with all his skill and experience, abandoned that method of raising calves, but after trying almost all ways and kinds of feed with various success, I have at last so far "learned the trade," that with good stock to begin upon, I think I can raise good, thrifty animals in nineteen cases out of twenty, without any scouring at all, and will give my method for the benefit of others.

I do not allow the calf to remain with the cow more than from twenty-four to forty-eight hours, because I think it easier teaching him to drink, and the cow is less likely to be uneasy. In teaching him to drink, I insert my fingers in his month and hold the kettle of milk with the other hand for one or two feedings, after which I have a place made to hold it from tipping over, and teach him gradually to take his mess without the finger. If the fingers are crowded into the mouth, sometimes he will refuse to suck them, to avoid which I prefer to begin upon them when lying down, patting and rubbing the head gently, which generally removes all fear. Perhaps I should say here that no *rough treatment* should be allowed, even if *provoking awkwardness is manifested.* The amount of milk given depends on the size of the calf, but two and one-half to three quarts will do for our common native cattle, which I gradually increase to four or five. I prefer to tie them, because it prevents them from sucking each other's ears,—is the first lesson in learning to lead—and they can then be watched separately to see the effect of their food, an important item, as I shall show presently. I feed entirely on new milk for two weeks, and then change *gradually* to skimmed milk two weeks longer, gradually increasing, but being *very careful to make no sudden change.* A little rowen is fed as soon as they will eat it, and a few oats or a little oil meal is sometimes added at five or six weeks, but I would not feed *much* meal until nine or ten weeks old.

While increasing the feed, I always *watch the excrements carefully*, and if at all too thin, give them a little salt pork sliced very thin (which they will swallow readily if put in their mouths and the head held up a few moments,) and diminish the feed. The milk should be continued until three or four months old, and then taken away gradually. I feed but twice a day, and consider this sufficient. Plenty of litter should be supplied, and a little wood ashes and yellow earth are, without doubt, beneficial, but not indispensable. I have heard scouring attributed to the saltpetre collected under old buildings, and that calves could not be raised in such places; but although neatness is quite important, plenty of litter will secure it almost anywhere.

You will perceive that the points which I consider most important are *gradual* change of feed, *careful watching*, and *no grain except oats or oil meal, and very little of that, until they are old enough to be able to bear heavy feed.*

WM. F. BASSETT.

Ashfield, February 13, 1862.

FINE WOOL.—Mr. SOLOMON BIXBY, of Warren, N. H., has sent us some beautiful samples of wool from his *Spanish Merino Sheep.* We have seldom seen any of finer quality. He says, "The Spanish Merino is a patient and docile animal, as well as hardy and prolific, bearing much confinement without injury to health. Accurate experiments show that this sheep requires only about two-thirds the fodder that it does for the large breeds. Their fleece is fine, and of good size, averaging about six pounds per head."

For the New England Farmer.

CATTLE BREEDS.

Among the topics introduced and discussed at our town and State agricultural meetings, during the winter season, few are of more importance or excite greater interest than those which relate to stock-raising and the various breeds of cattle. Judging, however, by the reports of the discussions as published in the newspapers, it is plain to see that, notwithstanding the testimony usually advanced to support the various theories proposed, much difference of opinion continues to prevail upon the subject.

This is to be regretted, inasmuch, speaking generally, where there is nothing certain established, there is no new light reflected. But, I apprehend the difficulty is not so much one of doubt, in a scientific point of view, as, that those circumstances which would tend to influence a theoretic result, are not taken into consideration. The truth is, the rearing of a big calf is too often held to be a fact of itself, independent of physiological conditions; and when the process of reasoning stops there, what is to be gained by further argument?

But, it is far from my wish to say anything to discourage the efforts everywhere making to diffuse a better knowledge of what is required to improve the breeds of cattle.

Discussions upon these and kindred topics are of the highest importance to the farmer; and the chief and only complaint that I would utter is, that too little weight is attached to the value of true scientific tests.

The time is not far distant, I trust, when the different States will become convinced of the importance of doing something to introduce the breed of cattle best adapted, or, rather suited, to their particular soil and climate.

The public treasury of any State need not be heavily taxed for such objects. Better would it be to educate the farmers by the cheaper method of establishing libraries, and courses of proper scientific instruction, trusting to individual enterprise for results.

Kentucky, by the introduction of the "Improved Durham" or Short-Horn breed of cattle, has greatly increased her agricultural wealth. It is the kind of stock exactly adapted to her rich pasture lands, and our markets are now largely supplied with beef from cattle grown in that State.

Massachusetts has experimented with several breeds of foreign stock, and great praise is due the public spirited legislators who had the wisdom to project and the skill and influence to put into practical operation, a scheme of such infinite worth to the agricultural interests of the "Old Commonwealth," as the State Farm.

But the question is not yet settled. The farmers of this State are still in doubt. Those in the western division give the preference to the Durham;—those of the central portion, to the Devon;—while those of the eastern choose the Alderney and the Native. Few like the Ayrshire.

The State Society has imported several bulls and heifers of this kind of stock, but they have not done well, and have failed to give entire satisfaction. The stock of Ayrshires imported expressly for a gentleman in Southboro', by Mr. Sanford Howard, were selected with great care, regardless of cost, and they are said to have done well; still, they are not altogether liked.

I think it is doubtful if this breed of cattle is well suited to our soil and climate. So far as my observation has extended, they are not a hardy race, and thrive only on extra feed. Their milking qualities are not much above the average of our native stock, and for the purposes of beef they are no better.

It was my purpose, when I began, to speak of cattle and breeds, independently of the opinions of mere stock fanciers; for it must be plain to every one, that to form a correct judgment as to the breed of cattle best suited to a particular locality, every circumstance, materially influencing their condition, must be taken into account.

The best and the most profitable of all, where hay and grain are cheap, is, without doubt, the Short-Horn.

Crossing the Short-Horn with the North Devon stock has been tried, and good results have been obtained; indeed, grades of this kind are held in high esteem both for their milking qualities and for their beef.

But there is danger of depreciation after a few generations, unless, as in all mixtures of the sort, the laws governing physiological science are strictly observed throughout. Breeding with the same bull for a series of years would change the type obtained at the start, or, technically speaking, according to the English, the progeny would "cry back."

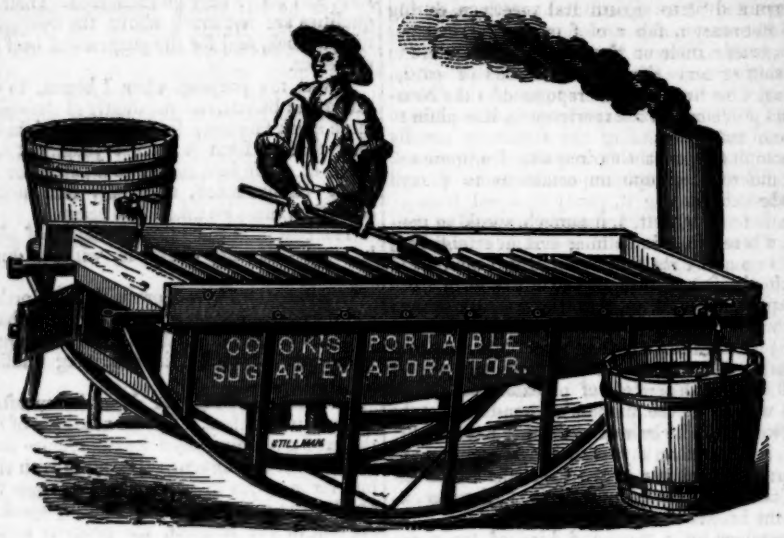
What is usually called native stock can be greatly improved by crossing with foreign breeds of the better descriptions. The Short-Horns or the North Devons, depending, of course, upon the locality and soil, can be crossed with great advantage to those who cannot afford the cost and outlay for full bloods;—and, it is to be hoped, if such an experiment is thought well of by our farmers, that some systematic plan will be inaugurated, by which a distinct native breed, combining most of the desirable qualities of the approved foreign breeds, will be secured.

The plan adopted and pursued by the late Col. Jacques, in breeding the "Cream Pots," was generally approved by our stock growers, especially as it was claimed that he followed the rules which governed Mr. Collings in breeding for his celebrated Short-Horns. But, the Colonel did not live to perfect his breed, and there is now scarcely a trace left of it.

* * *

West Roxbury, 1862.

THE UMBRELLA.—The umbrella has been used from very remote antiquity, as it is evident from carvings and representations found among ancient ruins of Persia, Arabia and China. Nevertheless it was not used by men in England until during the last century, and it is said that Jonas Hanway, who died in 1786, was the first person who used an umbrella in the streets of London. Even at that late period a man carrying an umbrella was an object of ridicule, and excited the jeers of the people by his "effeminacy." Previous to the introduction of umbrellas, the hackney-coach was the shelter of unfortunate pedestrians who happened to be caught in a shower; but it was customary, after their introduction, to keep a single umbrella at each of the coffee-houses, which, in cases of emergency, was lent, together with a boy to carry it.



For the New England Farmer.

COOK'S SUGAR EVAPORATOR.

[Sugar-making, either of maple sap or Sorghum, has come to be a matter of much importance to many of our subscribers, and we feel desirous to furnish them with all the information upon the subject that comes to our knowledge. We therefore give place to the cut and description herewith presented.]

Among the most useful of late inventions is this simple contrivance for evaporating saccharine juices. Its construction is as follows:—

The Evaporating Pan is constructed of copper or galvanized sheet iron, with wooden sides, and so divided by ledges as to form a continuous transverse channel about five inches wide. The pan is placed upon a furnace made of cast iron and heavy sheet iron, and lined within with brick. It projects about six inches over the sides of the furnace, to afford cool sides. The whole is mounted upon rockers of angle iron, thus giving a complete portable iron and brick furnace combined, and possessing all the advantages of either.

In operating, a stream of maple sap or cane juice is taken at the front end and passes back and forth through the transverse channel, and flows out at the lower end in a continuous stream of well defecated, finished syrup.

The mode of defecation is a beautifully philosophical one. The stream of juice passes across the heated centre of the pan, and comes to the cool side, when the scum rises and rests, being held there by the transverse ledge. It cannot follow the stream through the next channel, because the boiling at the centre repels it. The stream thus continues its course back and forth, depositing the impurities at the cool sides, where they rest until removed by skimmers. Thus, by the time the stream is half through the pan, it is thoroughly defecated, and arrives at the lower, or finishing channels, in a pure state. Owing to its purity in the finishing state, the maple syrup and sugar made on this Evaporator are of a lighter color and richer flavor than have ever been made in any other way. No eggs, milk, lime or chemicals of any kind are used.

By the use of a running stream, a very shallow body of juice may be kept upon the Evaporator without danger of scorching, thus securing very rapid evaporation.

The object of the rockers is to regulate the flow of the stream to suit the fire, so that it shall reach the outlet just at the point of crystalization.

The use of the transverse channel, the projection of the pan over the furnace to secure a cool rest for the scum and motion in the pan to regulate the inclination, are each and all secured by patent to this Evaporator.

It is a great economiser of fuel, requiring only from one-half to three-fourths of a cord of wood to about 100 lbs. of sugar.

As a Sorgho Evaporator, it has no rival. Sorghum sugar was made upon it last fall *by the ton*. All the samples exhibited at the Illinois and Ohio State Sorghum conventions, last January, and all the samples yet exhibited in the Patent office, were made with it.

Pamphlets, &c., may be had on application to Blymyers, Bates & Day, Mansfield, Ohio.

TRANSPLANTING SHRUBBERY.—In transplanting native shrubbery, from the forest to the open lawn, or door yard, this precaution is necessary. Select your trees from as open and sunny an exposure as you can find. Mulch the surface after planting with saw-dust, spent tan-bark, chip manure, or something of the kind, and in very hot days, shade with boards or bushes.—*Ohio Farmer.*

For the New England Farmer.

RETROSPECTIVE NOTES.

CULTURE OF THE KOHL RABI.—On page 61 of the February number of this journal, will be found a brief article on the foregoing heading, in the closing sentence of which O. K., of Rochester, Mass., asks his brother farmers to send to the *New England Farmer* their experience in the culture and use of this plant.

In compliance with this request, I propose to state some of the more important items of my knowledge concerning it, partly obtained from a brief experience with it, and partly gleaned in the course of researches made in several quarters previously to making my first attempt in raising it.

It is to be desired that the request of O. K. for information in regard to the culture and use of the kohl rabi should be responded to by all the readers of this journal who have had experience with it, as in the more common books of reference—ALLEN'S *American Farm Book*, for example—there is not a word of information to be found in regard to it. Nor need this be wondered at, for it is only a few years ago that it first received attention in this country; and only in 1857, that the attention of English farmers was first directed to it as a field crop or substitute for turnips. This was in consequence of a partial failure of the turnip crop in several counties of England about that time; but it was not until 1847 that there was any testimony in its favor which seems to have commanded much attention. In that year, a Mr. Davis stated that he had been very successful, for some years, in raising large crops of this plant, even upon poor soils, and commended it as superior to Swedish and common white turnips, of both of which there had been again a pretty extensive failure in consequence of a long-continued drought. Even in England, so far as can be ascertained from statistical accounts of crops there raised, this plant is not yet extensively grown, but from the most recent accounts it seems certain that it is beginning to receive increased attention as a farm crop.

One recommendation of this plant is that it is in some respects better adapted to succeed in our dry climate and hot summers, than the turnip. The author of the "Cyclopedia of Practical Agriculture,"—a work of the highest authority,—says: "Kohl rabi is *the bulb of dry summers;* heat and drought are congenial to it, and experience has proved that this plant grows, prospers and yields an enormous crop, under circumstances wherein white turnips and Swedes could barely exist."

Another recommendation of this plant is, that it stands the cold of our winters much better than white turnips, and better, even, than Swedes, or, as called among us, ruta bagas. The *Cultivator*, (Albany,) of 1858, quoting from the *Irish Farmer's Gazette*, says:—"The Kohl rabi is proposed as a substitute for the turnip, as it presents us all the qualities required for this purpose. It is perfectly hardy, and *will stand severe frosts* better, and keep in store for a longer period than the Swedish turnip. It also resists the attacks of the fly and the grub." Mr. L. Norris, of Ashtabula Co., Ohio, also bears testimony to the same effect, in said volume of the *Cultivator*, saying of the green-stemmed, or late green variety, which he got from Canada: "This rare vegetable is sweeter, more nutritious and more solid than the turnip; produces a greater weight per acre; it is also *hardier*, and *keeps better than any other bulb.*" Mr. N. says he has grown specimens weighing 14½ pounds. Mr. Harris, editor of the *Genesee Farmer*, says it has been found hardier than the Swede, and "is quite unaffected by frost, even with the thermometer 10° below the freezing point." We have usually buried it like potatoes, and found it always good in spring.

Another recommendation of this bulb or root is, that it produces a greater weight per acre than turnips. A fair average crop of this plant, in Scotland, is 25 tons of bulbs to the acre, and about 8 tons of leaves. These tops are larger and better than those of turnips for feeding to stock, resembling small cabbage leaves. Our cows have eaten them greedily.

As to the *culture* of this crop, it is found to grow on any soil fit for turnips. I have found it do well on a clayey loam. As it requires about six months to come to maturity, it *must* be sown *early*. When sown in June, I have found the crop quite small. The cultivation is the same as for turnips.

As to the *use* of this plant, it is said that all kinds of stock are fond of it. We *know* that cows certainly are; and for them I think it much better than turnips, and nearly equal to cabbage. It gives no turnip taste to the milk. Try a little of it, and sow early. MORE ANON.

For the New England Farmer.

FEEDING CALVES.

MR. EDITOR:—I noticed in your last a receipt, how to raise calves. Mr. Bassett says it will not answer to feed any kind of grain to young calves, excepting oats or oil meal. I think he is mistaken. I think any kind of meal can be fed to young calves to a good effect. I do not pretend that a large quantity of raw Indian meal should be given to a young calf; reason would teach a man better than this. I have raised quite a number of calves myself.

In the spring of 1859, I raised thirteen calves, and all the milk they had was what two ordinary cows gave. I fed them on Indian meal and boiled potatoes. I put the meal into a kettle of water and boil it very thin, for one hour or more, until it comes to a kind of jelly, and boil a sufficient quantity of each to last two or three days. I give each calf four or five potatoes, well mashed up with what meal I think the calf will bear; turn the milk on them, and stir them well together. In teaching them to drink, I put two fingers in their mouth, leaving a space between them, so that at each draft they can draw what they would naturally want to swallow. I keep a tub of clean water and a box of salt, where they can help themselves. My calves are as good in the fall as my neighbors' are, that suck twice a day until they go away from the cow. H.

Groton, N. H., March 3, 1862.

THE HORTICULTURIST.—The March number of this popular journal is illustrated with a beautiful engraving of the *Adirondack Grape*, and contains many excellent articles on horticultural subjects.

For the New England Farmer.

THE MANUFACTURE OF BRANDY AND SUGAR FROM BEETS.

MR. EDITOR:—Some two years ago, you published an article of mine in the *Farmer*, on this subject, which drew out considerable inquiry from different sections of the country; and as the war, and consequently the new tariff bill, will enhance the price of these articles considerably, I beg leave again to trouble you with a few additional remarks on the same important subject.

It is a well known fact, that in France and other parts of Europe, the distillation of brandy and the manufacture of sugar from beets has been prosecuted on a large scale for many years; and that the profits to the distillers, especially, have been enormous; and that many large fortunes have been made, in an incredibly short time, by those embarked in that branch of business, as the statistics of France do testify. Now when we learn from our own statistics what an immense sum is annually paid by this country to France, for beet brandy, of a very inferior quality, those farmers experienced in the cultivation of that root are often led to wonder why we cannot manufacture our own brandy, and by so doing create a demand for our produce, by keeping that large amount of money at home.

That wonder is still increased when we find that under proper cultivation we can produce fully one-third more of the raw material, per acre, in many portions of New England, than they can do in the most favored provinces of Europe, and of decidedly better quality. Three bushels of beets raised in the vicinity of Boston will produce as much saccharine juice as five bushels raised in the vicinity of Paris.

This may appear somewhat paradoxical to the casual observer, but the matter has been tested by actual experiments, and beet-growers of France admit the fact, as can be seen in some of their agricultural reports. Such is the peculiar adaptation of much of the soil of this State—at least to the production of beets—that it is justly said to be the only crop that the farmer can raise that has no hidden or secret enemies to contend with. Neither maggot nor mildew, nor any of the endless varieties of insects that infest and often destroy other crops, has as yet interfered with the beet in the smallest degree. Thus it would appear that the cultivation of beets in this country can be entered upon with some sort of certainty as to the final results; whereas most other crops are liable to numerous contingencies even in the most favored portions of this frugal land. Seeing, therefore, that such is the case, and that the present unfortunate war may make it both difficult and expensive to obtain these articles from abroad, we ought to manufacture them at home, in order to be as independent of foreign aid as possible. The first Napoleon, as a measure of necessity, as well as good policy, introduced the manufacture of sugar from beets many years ago into France; and up to the present time, that great nation has supplied itself with the very best quality of that article for domestic consumption, and could have had a large surplus for export had not some foolish legislative enactment of the government retarded its progress. The amount of revenue that France derives from the exportation of beet brandy to different parts of the world is too well known to the intelligent statistical reader to require any comment in this article; and the people of the United States ought to learn wisdom from such a source.

Farmers are often heard to complain for want of a market for their produce, and yet pay away their hard-earned money to foreign countries for what ought to be, and easily can be, raised on their own farms. Judging from the signs of the times, however, at no very remote period, we may, like Napoleon the First, of France, be compelled, by stern necessity to manufacture our own sugar, or go without sweetening. Beets can be raised profitably by our farmers at eight dollars per ton, and two tons make thirty-two gallons of double distilled brandy of far superior quality to what is generally to be found in most of the fashionable hotels and drinking establishments in our large cities. Now let those acquainted with the price of foreign liquors calculate the prospective profit, seeing the expense of the raw material and manufacture is inconsiderable. From ten to twelve bushels of the proper variety of beets, one hundred weight of the best quality of sugar can be produced; and any one acquainted with the simple process of making maple sugar can do it, and the utensils required can be got at small cost. Having had practical experience in the manufacture of both articles from childhood, (I may say,) I can state with confidence that fortunes can be made from this branch of business, could people of adequate capital be induced to take hold of it. Were it not for encroaching too much on the space of your valuable paper, I should have said much more on the subject, but you may hear from me again.

THOMAS CRUICKSHANK.

Beverly Farms, Feb. 12, 1862.

REMARKS.—Our correspondent states above, that "from ten to twelve bushels of the proper variety of beets, *one hundred weight* of the best quality of sugar can be obtained." This result is so much more favorable than we had supposed it could be, that it led us to look at some books at hand. In the "New American Encyclopedia," it is stated, that "five tons of clean roots produce about four and a half hundred weight of coarse sugar, which gives about 160 pounds of double-refined sugar and 60 pounds of inferior lump sugar; the rest is molasses, from which spirits of good quality are distilled."

For the New England Farmer.

WOOL-GROWING IN VERMONT.

At a meeting of the Directors of the Vermont State Agricultural Society held at Bellows Falls, Feb. 12th, the Hon. H. Henry Baxter having declined the office of President, on motion of the Hon. J. W. Colburn, the Hon. Edwin Hammond, of Middlebury, was unanimously elected President for the ensuing year.

The following preamble and resolutions were adopted:

Whereas, harmony and concert of action among wool-growers, is as important as among members of other occupations; and whereas, great losses

occurred to the people of our State, the last year, from the failure to appreciate the real value of wool and the condition of the wool market; and whereas, there is a question interesting alike to producer and manufacturer as to the manner of preparing wool for the market; therefore,

Resolved, That for the purpose of discussing these and other questions important to the wool-growers of the State, and for the purpose of aiding in the reaching of reliable conclusions with regard to these matters, we recommend the holding of a WOOL-GROWERS' CONVENTION in this State, some time during the present year.

Resolved, that the Secretary be requested to call such a Convention, to be held under the auspices of the Vermont State Agricultural Society at Rutland, on the afternoon of the ninth day of September next; said day being the first day of the annual Fair of our Society.

DANIEL NEEDHAM,
Secretary Vermont State Agricultural Society.

For the New England Farmer.

TIMELY ADVICE TO A BROTHER FARMER.

MR. EDITOR:—The *New England Farmer*, which is always a welcome guest in my family every Saturday evening, has just been laid aside for the pen, in order, if possible, to answer some of the inquiries of your correspondent, "Hampshire," concerning "What shall I raise, or how shall I make farming profitable, in these times?" I feel more constrained to converse with him on account of the noble stand he has taken not to cultivate the filthy weed, tobacco. And I extend to him the right hand of fellowship, believing, as I do, that the raising of that which does not tend to cultivate neatness and good breeding in society, does not constitute true farming.

True farming does not consist in placing too much value upon dollars and cents, but rather in returning, in some manner, to the soil, the crops taken therefrom. Better that any farmer should return to his farm all proceeds of it, rather than to lay up money in banks, or invest it in any other way. Then why is not this as good a time for the farmer as any? If a farmer begins by laying out the proceeds of his farm in some way upon his farm, it will some time return to him the interest, and I am very firm in the opinion that it will return a dividend also. By a continuance in so doing, he will, by the natural increase of his income, be enabled more extensively and scientifically to cultivate his farm, as each succeeding year he reaps the reward of his husbandry.

What should we say of the merchant, who should lay up in some safe place, every dollar he chanced to make, instead of laying it out to replenish his stock, and thereby make his business more prosperous, as well as more profitable. If this is the true course for the merchant, then why not for the farmer? And when he has enriched, beautified and ornamented the farm he now occupies from the resources of the farm itself, which I believe is possible, then let him extend the area of his farm, and continue the true cultivation of the earth while his strength of body and mind permit.

Here let me again say to your correspondent that I truly congratulate him in the stand he has so nobly taken, and I take it for granted that he is one of those firm, resolute, whole-souled men, who will withstand the temptations of those around him.

Let us, then, not judge of farming, as concerning dollars and cents, but rather in returning to the farm all we can make it produce, to increase its fertility and value, thereby making farming profitable always. WORCESTER.

Feb. 8, 1862.

For the New England Farmer.

COE'S SUPERPHOSPHATE.

Having seen a communication in the *N. E. Farmer* of Dec. 21st, signed by S. L. White, South Groton, in which he speaks about using Coe's superphosphate of lime without much, if any success, I would say that I have used it for several years with very satisfactory results to myself. In the fall of 1860, in harvesting my corn, I found I had by measure one-third more of corn where lime was used in the hill, than where none was used; this year the odds was not as much, but nearly as follows:

The piece I have just harvested measures 5¾ acres, very nearly, on which I raised 740 bushel baskets of ears of corn, as bright and yellow as any one could wish to see, which is a little over 64 bushels to the acre. In June, 1859, I plowed and planted the piece with potatoes, corn, ruta bagas, &c., with scarcely any manure. I put plaster in the hill and had as good a crop as could be expected. In the spring of 1860 I sowed the same piece with oats, and had a very bountiful crop, without any further manuring. As soon after the oats were gathered as I could attend to it, I had the stubble plowed under; in the spring of 1861 I spread on about 30 ox-loads, of 30 to 25 bushels each, of manure to the acre, and plowed it well, (for I don't approve of half-plowing.) On the two last days of May I planted it, putting in the hill one table-spoonful of plaster and lime mixed together about half and half; I left two rows without anything in the hill. In two rows alongside of these I used a single handful of wheat bran to the hill, and two other rows alongside, I used one spoonful of clear phosphate of lime in the hill, and the result was as follows:

Clear lime to the row	17	bushels of ears.	
Bran	16	"	"
Lime and plaster	15	"	"
Nothing	15	"	"

The rows were about 220 hills long. The corn where nothing was used was not near as sound and good as any of the rest, the clear phosphate being the best. I think the corn was enough better where the phosphate and bran were used, to pay all the expense, even if there had been no more bushels. In using the bran, or clear phosphate, there should be some dirt kicked on before dropping the corn. I shelled four baskets of my corn and got two bushels and two quarts. It is the twelve-rowed variety. I do not think, nor expect, the phosphate will answer in the place of manure, but merely as a stimulant.

L. C. FRENCH, 2D.

Bedford, N. H., Dec. 30, 1861.

P. S.—I forgot to say that I can find a good many ears of corn among mine that have over 800 kernels to the ear. L. C. F.

For the New England Farmer.

COST OF ROOTS.

MR. EDITOR:—I noticed through your paper that at the discussion at the State House, the question was asked as to the cost of roots, and as no one seemed to know, I will give you the details for their benefit.

On the 24th of May I sowed a piece of land with mangel wurtzel; last year the crop was Hungarian grass and weeds—full as much of the latter as of grass. I turned the stubble in early, and spread at the rate of 40 loads of good manure to the acre. Last spring it was plowed and cultivated, drilled, and four horse-cart loads of compost manure to an eighth of an acre was put in the drills. The drills were three feet apart and plants nine inches. One-eighth of an acre was kept separate, and weighed. Now for the cost:

5 loads of manure, at $1,25 per load, ⅛ spent	$3,12
Man and horse plowing and cultivating	30
2 loads put in drills, $2,00, ⅛ spent	1,00
Drilling	25
Planting	25
Cultivating 3 times	15
Following with hoe, 1½ hours each time	67
Gathering and housing	1,50
Total	$7,24
Total weight of roots 8035 pounds, equal to 4 tons, or 42 tons to the acre, worth $8 per ton	$32,00
Balance in favor of roots	$25,76
Or to the ton	$6,44

About the first of August we began to gather the lower leaves, and before the fifth of September one ton was gathered, and one ton more when harvested. Full a ton was allowed to go to waste. I think, with proper care, the top can be made to pay for cultivating and manure spent. The ground is left in much better condition than found. One-eighth of an acre of carrots cost four times more to cultivate, and produced only about twenty-two tons. I have raised both kinds for several years, with result similar to the above. The mangels can be cultivated at less expense than corn, they shade the ground so soon. L. W. CURTIS.

Globe Village, Feb. 5, 1862.

NEW PUBLICATIONS.

THE HISTORY OF HAVERHILL, MASSACHUSETTS, from its First Settlement in 1640, to the year 1860. By GEORGE WINGATE CHASE. Haverhill: Published by the Author.

This is an exceedingly interesting book. Beside the minute details of the settlement of the town itself, the author has introduced many pages of the most interesting historical facts, though all tending to illustrate his principal topic. The true character of the Aborigines of New England is little understood by our people. They have general credit for a heroic daring and purity of purpose, which, in our mind, is not justified by the record of their deeds which has come down to us. Mr. CHASE says,—"The aboriginal inhabitants of New England held a low place in the scale of humanity. They had no civil government, no religion, no letters, no history, no music, no poetry. The French rightly named them, *Les Hommes des Bois*,—"Men Brutes of the Forest." He gives a searching analysis of their character, which certainly robs it—and justly, too—of that stern purity which has so long been accorded to them, and declares that "in constitution of body and mind, they were far below the negro race." The book is handsomely printed, and illustrated with upwards of twenty maps, views, plans and portraits of distinguished persons. A copy of this history should be in every town library of the State.

EXTRACTS AND REPLIES.

MANURING—SEEDING—BEST TURNIP—PRUNING GRAPE VINES—OYSTER SHELL LIME, ETC.

1. In the spring, I think of turning over a piece of greensward for planting corn and potatoes. Is it the best way to spread manure on the grass and then turn over the sward, or turn the sward and then spread manure on top and harrow or cultivator it in, or is some other way better than either?

2. In seeding ordinary planting land to grass, how many bushels of oats is enough per acre, or would it be better not to sow any?

3. Would Rhode Island Bent seed be any better to seed land with that is heavy, than any other kind, and how many bushels is enough per acre?

4. I wish to know the best, sweetest and most profitable kind of turnip to raise for the table. I do not mean flat turnip.

5. When is the best time to prune grape vines?

6. Can oyster shell lime be bought now in Boston or vicinity, and if so, at what price per bbl.?

7. I have a mare that has been lame by spells, for about two months and a half, sometimes quite lame for a while, and at other times not so much so; I have tried quite a number of remedies that others have recommended without much real good; at last, I thought I would try Arabian Balsam. I should have said before that the trouble appears some like the "scratches." It is in the pastern joint of the fore leg. The flesh cracks, and the edges of the cracks are hard and sore; there has been fever in the foot and joint, I think. I pour the balsam into the cracks once or twice a day; after a few days it will heal, then I stop using balsam, and use the mare, and then the flesh cracks again. Can you tell me a remedy?

Wrentham, Feb. 10, 1862. A SUBSCRIBER.

REMARKS.—1. Opinions and practices are divided on this point. Some of the best farmers in New England always practice the former mode, while others, equally as good, pursue the latter course, and each has reasons in favor of his own peculiar mode. We have tried both ways, and prefer to plow first, then make the manure as *fine as we can*—and should be glad to have it as fine as corn meal if we could, profitably—work it under one or two inches, strike out the field into squares, and add some quickener to the hill, such as hen compost, superphosphate of lime, American guano, night-soil compost, or some warming and quickening stimulant that will push the crop along in the early part of the season. Whatever this stimulant is, it should be scattered over a space 8 or

10 inches square, and be thoroughly mixed with the soil.

2. Farmers, such as we have spoken of above, vary in their practice, sowing all the way from one bushel and a half to three bushels per acre. There is no well-settled rule about it. If the oats are to ripen and be harvested for their seed, a less quantity may answer than if they are to be cut green for fodder.

3. It is not the practice to seed land with red-top, or "Bent Grass," alone. Four quarts of timothy, three or four pecks of redtop and 8 or 10 pounds of clover seed, make a judicious seeding for an acre.

4. The Sweet German.

5. Prune grape vines in November.

6. Oyster shell lime may be purchased of Mr. James Gould, Boston, at 50 cts. per cask.

7. Keep the parts affected perfectly clean whenever the mare is not at work, and rub with some soft, clean oil, and give her two table spoonfuls of Epsom salts twice in the course of eight days.

—

SHAPING THE HORNS OF STEERS.

Mr. Clark Hill wishes to know how to match steers' horns. The position of horns may be changed by scraping them. If it is desired to turn the horn up, scrape on the under side; if to turn the horn out, scrape on the inside, and *vice versa*—as that side of the horn scraped grows faster than the other, thereby changing the course or direction of the horns. But this is a slow process, and I will give you a more effectual method of matching steers' horns. You may be aware that horns, when young and growing fast, are tender, and may be turned in almost any direction by gently pulling them. Now, then, take a ball and screw on to the horn tight; then take a small pulley, make it fast over the head in the direction you wish to turn in the horn; then take a small cord, make it fast to the horn, pass it over the pulley, and tie on a weight; taking care not to put on too much weight, which would turn the horn too short. About the weight of a brick is sufficient for a two-years old steer. Whenever he is put into the barn, hitch on the cord and let the weight be pulling, and in the course of two or three months there will be a decided change in the position of the horn. C.

Groton, N. H., 1862.

REMARKS.—N. S. WATERMAN, Orange, Vt., suggests the same mode, and says that oiling the scraped portion will facilitate the process. Mr. J. M. FULLER, of Fairlee, Vt., gives the same direction.

—

PARSNIPS FOR COWS IN CERTAIN CASES.

I frequently hear of cows not doing well after calving. I have a cow that dropped her calf Feb. 3, but retained the after birth. I tried a number of things but to no effect, until the 7th, when one of my neighbors passing by, told me to give her four quarts of parsnips. I did so, and in less than twelve hours it was dropped. I have since learned it had the same effect upon others. Many valuable cows have been lost and others ruined, by forcing the after birth away or by letting it rot. I was informed by the same person that one of his neighbors, in order to have his cows do well, gave them parsnips a number of weeks before their time was out, and the next morning he found they had dropt their calves. S. H. WHEELER.

Mason Centre, N. H., 1862.

—

COTTON CULTURE—BORDERS.

Will you please to state in your next number of the *Farmer* the *modus operandi* of the Cotton Culture? Having received seed from the Patent Office, I desire to know how to plant and care for the same; I have got the necessary improvements for starting the seed under glass, if it must be so.

Please state how to prepare the ground in borders for starting grape cuttings, rose cuttings, &c.

SUBSCRIBER.

REMARKS.—In the Southern States, cotton seed is sown in rows commonly four to five feet apart, and eighteen inches apart in the rows. If the crop is kept clean and the soil light, it will be likely to flourish better. It ought to be sowed as early as it can be, and escape frost. Two or three plants in a hill or cluster, is enough. If the plant grows rank, when it is up two or three feet high, cut off the top, as is sometimes done with the tomato, and this will throw the growth into the pod, and sensibly increase it.

To prepare borders for grape cuttings, &c., make a deep, fine soil, to which add manure plentifully, and let a portion of it be slaughter-house manure. Dig this in deep, and until the whole—soil and manure—is thoroughly mixed.

—

RED OAK SAWDUST.

I am using red oak saw-dust to bed my cattle with, my muck being frozen, but my neighbors say I am all wrong, it being so sour it will spoil my manure, spoil my crops, spoil my land! Will you, or some of your correspondents, enlighten me upon the subject. I use lime and salt in my compost, and shall use the saw-dust until I learn something more about it. I used the ash saw-dust last winter with good effect. A. F.

West Baldwin, Me., 1862.

REMARKS.—We have no doubt that even the *red oak* sawdust is valuable, as you use it. Mixed gradually with the droppings of the cattle, or composted with lime and muck, it has considerable value in its mechanical effects upon the soil, as well as for its nutritive properties.

—

HOW TO SET FENCE POSTS.

Please to tell farmers who are so often inquiring how to set fence posts so as not to have them heave out by frost, to sharpen the end, make a hole with an iron bar, drive the post in, and it will stand fast for ever in any wet land.

East Burke, Vt., 1862. S. WALTER.

For the New England Farmer.

FARMERS' CLUBS---A FORWARD MOVEMENT.

FRIEND FARMER:—I have recently been much interested in a forward movement by a Farmers' Club that I wot of, and which I think will greatly increase its usefulness. The Club was organized about ten years ago, and its members are wide-awake men, deeply interested in the improvement of themselves in knowledge of their business, and of their farms in productiveness; many of them hardly missing a meeting for the whole season, though obliged in some cases to travel, in inclement weather, from three to four miles from home. It has been the custom of this Club at the beginning of each winter to select questions for discussion and fix places for the meetings for every week during the season, and the programme is printed and a copy given to each member. The meetings are held at the houses of the members; the member at whose house they meet being expected to write an essay to be read as an introduction of the subject up for discussion that evening. These essays are supposed to embody the best thoughts and the ripest knowledge of the writers, the result of practical experience, and the study of books and of nature; and the discussions that have followed them have always been interesting, and often intensely so. The topics discussed are usually of a practical character, directly relating to the business of the farm; with occasionally one of a broader interest, whose practical bearings on farm management are not at first sight so direct and palpable.

It has recently been suggested that it was time for the Club to take a step forward; that it might be more profitable sometimes to introduce subjects that were not familiar to all—topics that will reward as well as require special investigation by the members—instead of permitting them to depend on their previous knowledge or experience for what they shall say. It was believed that all wanted to learn something that they did not already know; considering the Club a sort of school for mutual instruction, where every one is able to teach a little and learn a great deal. It has also been suggested that the interest in, and the fruits of our discussions would be greatly increased if the subjects to be talked and written about were selected and assigned a year beforehand, as opportunity would thus be given for special and more thorough investigation, by examination of common practices, and looking into the reasons for them, while performing the labor, by experiment in the fitting season, by a study of the experiences and theories of other men as recorded in books, and by careful study of the pages of Nature's great book as they are turned over for our perusal. Every member is supposed to be a thinking man, and to be desirous to come at facts and true theories; and is expected to be at all times wide-awake to observe, and free to criticise, in a kind and truth-seeking spirit, the opinions and practices of his neighbors as well as his own, believing that truth, though standing alone and unrecognized, is more worthy of regard than error, however venerable for age, or however highly or numerously patronised. By using this longer time for more thorough and exact investigation, the members expect to be enabled to winnow out some chaff from among their opinions, leaving the good and reliable grain in a better condition to sow for another crop of valuable knowledge. It would seem that a company of men earnestly interested in questions having an important bearing on the general welfare, with these topics specially before them for thought and inquiry during a whole year, can hardly fail to bring out something that would be new to each individual, as well as establish on a firmer basis such of the old notions as may be found good. If in no other way useful, this plan, faithfully carried out, will surely tend to develop the spirit of inquiry, to give increased mental activity, promote the love of knowledge, and to some extent furnish the means of gratifying that love.

I have been induced, Mr. Editor, to offer you this statement, in the hope that other clubs may adopt the plan proposed, unless they already have one as good or better. M. P.

Concord, Jan. 30, 1862.

For the New England Farmer.

AMERICAN GUANO.

MR. EDITOR:—"Patent" or "foreign" fertilizers have become quite an "institution" in the pursuit of agriculture. And when it is considered that the greatest problem which the farmer has been called upon to solve, has been, and still is, how shall the fertility of the farm be improved, or even kept up, without keeping a stock of cattle sufficiently large to consume all, or nearly all the hay and grain raised upon the farm, we shall readily understand why "extra" or "foreign" fertilizers have become as much a necessity, as the improved implements of husbandry, which enable us to accomplish double the amount of labor in less than half the time consumed in the use of the ruder implements of the past.

A large share of the farmer's resources have long been expended in producing means to keep as large a stock as possible through the winter, in order to make his manure heap as large as possible in the spring, whether the making of flesh or the products of the dairy gave an adequate return for the expenditure of the hay and grain, or not. Fields distant from the barn, and old pastures, have had to remain in their worn out condition, because the faamer has felt constrained to apply his manure to fields more convenient, requiring, as it would, even if he had barn manure to spare, a large outlay in labor to transport such heavy and bulky materials to more distant localities. But the introduction of "foreign" fertilizers has done much, and is destined to do far more, in the future, to advance this important interest of the farm.

The intelligent farmer finds that by a judicious application of some of these fertilizers, he can keep up, not only the fertility of his oft cultivated fields, but he can render fertile and productive lands which have long been of little value. With him, the question whether farmers can afford to purchase such manures, has been settled affirmatively. His only concern is to know *which* special fertilizer, among the many urged upon his attention, is most worthy of his patronage and confidence.

In the hope of aiding in the solution of this

question, Mr. Editor, permit me to state my own experience in the use of the American Company's "Jarvis Island Guano,"—a guano obtained from an island in the Pacific Ocean, whose deposits have the same origin as those at the Chincha Islands in Peru; the chief difference arising from the fact, that the former island is situated in the latitude of variable winds, which produce occasional rains, whereas the latter are within a belt of climate where rain is almost unknown. Peruvian guano is chiefly valuable for its *ammonia*, while the Jarvis Island guano is surpassing rich in phosphates—according to Prof. Hayes, of Boston, containing no less than an equivalent of 81 per cent.—an element of fertility which, above all others, our old fields and pastures are most deficient of.

I have used the American Company's guano for the last two years with marked success. My first trial of it was upon a half acre of old pasture—light sandy loam—sowed with oats and grass seed, it having been broken up and planted with potatoes the previous season, with no other manure than superphosphate in the hill—being too far from home to think of applying barn manure—and which had not been plowed or top-dressed for twenty-five years. I did not expect any other return from the oats, than a little feed for my young cattle; but they grew so well, and became so promising for a crop of grain, that I determined to let them mature. Before the grain got out of the milk, a portion became so badly lodged, that I was obliged to cut that portion in a green state, making a small horse load. The remainder of the half acre matured, and yielded twenty-one bushels, weighing thirty-four pounds to the bushel.

My second trial was upon ten rows of corn, through a field of three acres, evenly manured throughout with best barn manure, at the rate of eight cords to the acre; a small handful of the guano was applied to each hill in ten rows, making about twelve hundred hills. These ten rows presented a marked superiority throughout the season, and at harvest, upon careful measurement, yielded twenty per cent. more corn than the average of the rest of the field, besides maturing ten days earlier. My neighbors were often called during the season to witness its appearance. I have also used this guano as a top-dressing to old field grass with marked and profitable results. I have used it for peas with the most gratifying success. And as this guano is sold at about forty dollars per ton, I consider it the best and cheapest foreign fertilizer to be had, especially for pastures and old fields. It is richer in phosphates than any other article with which I am acquainted, and if its effects upon growing crops are not so striking or immediate as the Peruvian guano, I am persuaded that it will prove of more lasting benefit to almost any soil to which it may be applied.

Westboro', Jan., 1861. T. A. SMITH.

REMARKS.—What Mr. Smith says above, corroborates what we have more than once stated as the results of our own experience in the use of *American guano*. We know him well, and his practices as a farmer. His farm is not managed by guess-work, but is conducted systematically, and so that he is able to give satisfactory reasons for the results he objects. We believe that all persons may obtain results similar to those stated by Mr. Smith, if they use the guano as judiciously as he did.

For the New England Farmer.

BEDDING AND PLASTER IN STABLES.

I have just read a piece in your January number, signed "More Anon," on the use of plaster in stables, &c. I will tell you my plan, which I find is not only cheap, but I think as good as any other, viz: After cleaning out my stables, I have a half-bushel of sawdust, or a large shovelful of sand to each horse or cow, sprinkled over the stables. More does no harm, as it absorbs urine when the stock is put up again.

I prefer sawdust for horse bedding to anything I know of, and always lay in enough in fall and winter, to carry me through. I generally keep a thickness of six inches under my horses all the time, and find it is very little trouble to keep them clean, and the stables sweet. I see forest leaves recommended very highly for putting in yards, hog-pens, stables, &c., and have no doubt they are excellent.

WHITE AND PITCH PINE LEAVES.

Can you recommend the leaves of our common white and pitch pines for the same use? I have an almost inexhaustible supply of them near by my barn, but have not had faith to use them.

COE'S SUPERPHOSPHATE OF LIME.

I put Coe's superphosphate on three rows of corn through a piece last season at planting, and we could pick out the rows an eighth of a mile distant, from the time it came up until cutting stalks, and even after that. I also put it on some corn at the first hoeing, in alternate rows, where there had been no manure at all, and it did not show itself at all. I also tried it on alternate rows of potatoes on the same land, at the same time, and could see no effect whatever. I set out one-fourth acre of sweet German turnips about the middle of July on some old pasture land, and put a small handful of it in the hill, and had a fine lot of turnips, but a small piece was left without anything, and the turnips were not worth pulling. I intend trying it more definitely another year.

North Blackstone, 1862. J. ALDRICH.

TIMOTHY GRASS IN SOUTHERN OHIO.—I have had about one hundred acres in grass on my farm, for the last twenty years, and testing its value in dollars and cents by a close calculation of weight, find Timothy to be the most profitable of all grasses. My cattle prefer it to any other grown in this climate. I find that every kind of stock that feeds on grass, works after the Timothy more than the other grasses, and they pull it up and destroy it, and other grasses and weeds take its place. I can cut my grass with a mowing machine, for fifty cents per acre; a good yield will average two tons per acre. Baling it costs $1,50 per ton; the whole cost of preparing one acre of Timothy grass for market, is $5,50 per acre. My crop of hay has sold, for the last three or four years, at the rate of $15 and $16 per ton; two tons per acre, shows a profit of $24 per acre.—*W. D. Kelley, in Ohio Farmer.*

VERMIN ON CATTLE.

XEN and cows, and especially young cattle, are very liable to be attacked by vermin, — and unless care is taken to prevent their depredations, they will seriously impair the growth and productiveness of the stock. In the spring these exotics usually show themselves the most numerously, and for this reason we call especial attention to the matter now. Applications are annually made to us for some remedy to destroy these pests, and among those suggested are,—

Any clean *oil*, applied to the skin and thoroughly rubbed over all the upper portions of the animal,—and particularly along the line of the back bone, between the horns and ears, and on the shoulders and neck. The reason for covering such large portions of the creature is, that lice *do not breathe through the mouth*, but through *breathing-holes* or *pores* in the body, and when they come in contact with oily substances, these pores are stopt, and they die.

Fine *sand*, or dry *loam*, carefully sifted over the animal, and frequently repeated, will greatly annoy vermin, and perhaps drive them from their places. It is probable that cattle paw the fresh earth and throw it upon themselves, for the same reason that fowls burrow in the ruts or the dry garden soil.

Ashes.—Some persons apply wood ashes, and it is good, but requires to be used with much care. If it is applied plentifully, and the animal is exposed to rain soon after, the ashes is leached, trickles down in ley, and takes off the hair as it passes.

Tobacco-water is also employed by many, and is frequently effectual. This may be purchased in a highly concentrated and convenient form.

Kerosene has been latterly used, and with success. If applied too freely, it seems to set the hair and partially tan the skin. Where it has been applied profusely, we have seen the old coat of hair remain on nearly through the summer, while the skin under it was hard and dry, and appeared to be inactive.

Yellow Snuff is often successfully applied.

Unguentum is a certain remedy, but is a dangerous one in unskilful hands. Its active property is probably quicksilver, (mercury,) and has a powerful influence upon the skin, rendering the animal liable to take cold upon exposure.

Spirits of Turpentine is another remedy, and is said to be a most effectual one. The mode of using it is to take a common wool card, and pass it over the animals until the teeth are pretty well choked with hair, then pour on a small quantity of spirits of turpentine, but sufficient to moisten the hair in the card, and again pass it over the animal's coat—applying the card first in places where the vermin "most do congregate." In this way every insect will be compelled, almost immediately, to "vamoose." The operation should be repeated in the course of three or four days, as newly-hatched lice may supply the place of their progenitors which have been destroyed or driven off by the first. As turpentine is of a very diffusive and penetrating nature, one wetting of the hair in the card will be sufficient to dress off an animal of ordinary size. This last remedy we give on the recommendation of others, and not as the result of our own experience.

DIELYTRA SPECTABILIS.

Probably nothing, among the hardy herbaceous plants, can excel in rare value and beauty the dielytra. Hardy as a peony—which it resembles in its foliage—as soon as the frost is fairly out of the ground, it commences to push its tender and succulent shoots upward to the sunlight. It is a vigorous and fast grower, and almost as soon as its first delicate leaflets are fairly formed, the first slender blossom-buds appear to give promise of coming beauty. Planted in the border, with a good exposure, and in good company, or by itself on the lawn, (in either case in rich soil,) it will command the admiration of all who see it.

When properly cultivated, it begins to blossom in May, and continues in bloom during the greater part of summer; the plant usually attaining a height of about two feet. The flowers, which are of a peculiar and beautiful shape, and of a beautiful rose color, appear in long racemes, each flower-stalk drooping gracefully under its burden of pendulous blossoms—each blossom a perfect curiosity in itself, which will well repay a close examination.

This unique plant is of Chinese origin, and was introduced into England a few years since by Fortune. It has proved itself capable of withstanding our severe winters unprotected, but it is best to give it a slight covering in the early part of the winter, to ensure a vigorous start in the spring.—*The Homestead.*

TAPES IN POULTRY.—A writer in the *Country Gentleman* says he cures this disease in chickens by feeding them on food described as follows:

I take of cracked corn (chicken feed,) four quarts—four quarts coarse wheat bran—scald the meal and bran at the same time—add two tablespoonful of good wood ashes sifted, as also one tablespoonful of best ground black pepper. I feed my turkeys and chickens in the same way. I feed often, say once every three hours.

LEGISLATIVE AGRICULTURAL SOCIETY.

Reported for the Farmer by D. W. Lothrop.

The seventh meeting of the series was held on Monday evening last, at the Representatives' Hall, when the subject for discussion was that of the previous meeting, namely, *Farm Buildings.*

Mr. Stedman, of the Committee on Agriculture, called the meeting to order, and observed, that though he did not intend to preside—expecting Mr. Davis, of Plymouth, to do so—he would occupy the chair till he came. Not desiring then to discuss the subject himself, he would call upon

Mr. Wetherell, of Boston. Mr. W. spoke of the importance of the subject to farmers, of the necessity of a good farm-house, with proper outbuildings, convenient, tasty, and located near together. There was economy in this, not only for the farmer's own use, but also in letting them, if occasion required. The dwelling should be of a size convenient for the family, and should be tasty rather than costly—and so with the other buildings generally. They exert a happy influence upon the children, and the speaker contrasted those bred in a low thatched-roof cottage with those reared in dwellings of more architectural beauty. The former were apt to be but little above animals, while the latter were neat and intelligent. He thought the grounds around barns should be underdrained, as a point in neatness, and spoke of the evils of damp barns, and their evil influence upon sheep. He also alluded to the importance of the ventilation of barns; the strong scent of ammonia affecting the hay, though not always perceptible to those frequently in the buildings. The heat arising from the manure, also, he thought bad for the cattle, especially where occasional draughts of cold air were introduced. He advocated ventilation, but it should be at the top, and spoke of some improvements upon the old arrangements for this purpose. The milk, too, of cows without good air, he believed was much deteriorated. Barns for cattle should be only of medium warmth, as heat tends to weaken them. He spoke well of watering stock inside of the barn; the room they required, their position, &c. In regard to the disease of cattle being influenced by tight barns, he thought there was danger, and urged proper ventilation. Hay, in such barns, he again intimated, was injured, and he thought it well to keep this in one barn, and the cattle in another, with a railway, perhaps, between them for transporting it—laborious it might be, but he thought well of it. He could not favor barn cellars, as he had not the slightest doubt of their bad effect upon the hay above them, as in such barns a man's clothes would become saturated in an hour with ammonia.

Hon. John Brooks, of Princeton, being called upon, spoke of his experience in regard to barns. They should be adapted to the immediate circumstances of the farmer. He had built two with some good arrangements in each; but he seemed to favor the old New England style, with a door at each end. He objected to pitching hay higher than the beams, and thought the bays should be broad. He has a barn cellar, and formerly worked his manure over in it the first year, but thought it injured his hay, as it changed to an ash color. He now carts out his manure in the spring, and sees no discoloration of the hay; would have a cellar aside from his barn, and shove the manure into it, but would not have it under the hay. He has a cow-yard, 40 by 70 feet, which is covered, and he thinks the manure improved. He ventilates his barn at the top, but none can be kept entirely sweet. High barns were objectionable, as we should not pitch hay more than sixteen feet. He recommended turning out cattle for water, but we should be careful, and not let them drink too much, which they were inclined to do.

Gen. Sutton, of Salem, being called up by Mr. Howard, said he commenced farming thirty-five years ago on four acres, and finding his barn not large enough, built another 42 by 70 feet, with 18 feet posts. Has a cellar under this barn, a part of it for vegetables and fruit, and keeps eighteen cows, with other cattle, numbering forty. The manure goes into the pen underneath. He has three ventilators to his cellar, which terminate at the eaves of the barn. The barn is ventilated by two small windows at the gable end, and generally contains 80 tons of hay. Has three barns 100 feet apart; one he keeps for hay, another for oxen and horses, and the other for machines and farm implements. In it there is a carpenter's shop, and also a room for his men, whom he supplies with agricultural newspapers. As to barn cellars, he thought they should be ventilated, as they might otherwise damage the hay. He said again, he commenced with four acres, but now has four hundred, and likes farming better and better as he grows older. To the question as to whether he had made money, he replied he had not lost any! And to that of Mr. Wetherell, as to composting his manure in his cellars, he replied that he cleaned them out once a month, and composts it where he uses it. As to whether he approved of barn cellars, he responded to Mr. Stedman that he did, and would as soon build a house without a chimney as a barn without a cellar.

Mr. Brooks said Gen. S. carried out his manure, and as one side of his cellar was open, it did not test the question as to the odor from cellars. Even in winter ammonia would rise.

Hon. J. Quincy, Jr., said he moved his manure often, and covers it with muck. He was glad to hear that others carried it out in the winter, as he felt encouraged.

Mr. DAVIS, of Plymouth—after apologizing for not being present to preside—said he could perceive no evil in keeping manure in cellars from October till spring; but in the summer, he admitted that in horse stables the ammonia might be injurious, and he spoke of the sleighs of the Boston stable-keepers being discolored, and the varnish injured, by being stored in their stables during the warm season. But we should consider the difference between horse and cow manure. He also complimented Gen. Sutton for the general neatness and convenience of his farm buildings, and particularly alluded to his tool-house, where every little piece of iron was saved for the time of need, which, according to the old maxim, came once in seven years.

Mr. STEDMAN thought we needed system in our farm buildings, and would have the main outbuildings under one roof. He recommended barn cellars, and in his own case he had not experienced any injury to his hay, though he does not carry off his manure in the winter. Uses muck. He objected to tying cattle; spoke of an ox being thrown, and said they should not press against the stanchions. His platform for cattle is three and a quarter inches high, covered with additional strips of plank a little separated, to drain off the urine.

Mr. QUINCY alluded to sand as bedding; he thought it improved the manure, and prevented the escape of gases. His foreman thought well of it, and it had been much used in England in horse stables. Mr. Q. here alluded to the great racing-horse stable of Senator Hammond, of South Carolina. These horses are kept in sheds, with a little negro to attend each one. Horses need light and air, and his own have a small window at their heads. Darkness makes horses skittish, yet the jockeys like it on this account. For unloading hay, he commended the horse pitchfork, as it was expeditious, and would take off 300 or 400 pounds of hay at once.

Mr. BROOKS thought the horse pitchforks unprofitable, as they required a horse and three or four persons with them.

Mr. QUINCY replied that he recommended them only in *high* pitching.

Mr. HOWARD observed that they had for a long time been used in Pennsylvania, and it was only claimed that they were important for high pitching. They would put up a load of hay in five minutes.

Mr. WETHERELL thought as the argument now stood, the general opinion of the meeting was against barn cellars. He regarded Mr. Brooks' theory as the true one, of keeping the manure not under the barn, but beside it.

Mr. STEDMAN replied that if the opinion was against cellars, it was simply because the best speakers were against them. He then briefly commended cellars.

Mr. HERSEY, of Hingham, said he had a barn 100 by 35 feet, with a cellar under it, with 10 feet opening, but had experienced no trouble with his hay. Had sold 50 tons at the rate of $24 per ton. He also alluded to his keeping sheep and cattle in his barn cellar, saying they did well.

Mr. ANDREWS, of West Roxbury, observed that he had room for thirty cattle in his barn; throws the manure into the cellar, but perceives no bad effect upon the hay. The cellar was ventilated, and he used muck to absorb the urine. He thought the sense of the meeting would be—*barn cellars well constructed.*

Mr. BROOKS said he would have a spout to conduct off his liquid manure—though muck was good to absorb it. He had used sand; thought it not valuable as an absorbent, but his theory was, that the urine decomposed the sand, and by setting free the potash, it was useful in the manure heap.

Mr. ANDREWS further observed, that a barn merely for hay required no cellar; a single roof on four posts would be best. Hay in stacks is bright and fresh, and cattle eat it readily.

Mr. HERSEY said he had some hay packed closely in a barn on a wharf, without any ventilation, and it was the best he ever had. Air, he surmised, was rather injurious to hay, carrying off its aroma, and it might be ventilated too much.

Mr. WETHERELL agreed with Mr. H. Hay-barns need no ventilation.

Mr. BIRD, of Watertown, alluded to the importance of cheap barns, which a man of moderate means could build. Many barns he thought cost as much as the majority of farmers are worth. It was important to tell these men how to build a barn worth $500, or less; and he spoke of one built in Belmont for $400, with a cellar.

Mr. STEDMAN alluded to his barn, which cost over $500.

Mr. HOWARD, of the *Cultivator*, inquired what were the principles involved in building a barn, and what in keeping hay, cattle, manure, &c. The Chinese keep their tea close to save its aroma. Does hay need more air than tea? It will keep well close, if no change of temperature takes place; but *cattle* must have air. Mr. H. here alluded to the English, touching their barn and cattle arrangements, and said they were rather behind us in this respect. Their winters, however, were lighter than ours, and they might not require tight barns. Now, he said, the practice was becoming common, of feeding their cattle and keeping their hay under sheds during the winter. Mr. H. also spoke of some other subjects in this connection.

The time having arrived for closing the meeting,

the chairman announced *Fruit Culture* as the subject for the next discussion, when the Hon. MARSHALL P. WILDER would preside.

For the New England Farmer.

RETROSPECTIVE NOTES.

THE RELATIVE VALUE OF DIFFERENT VARIETIES OF CORN.—This communication, which the reader will find in the issue of this journal of Jan. 18th, and in the February number of the monthly edition, is deserving of commendation, partly because it puts upon record the results of an important investigation which go far to settle some questions which have long been unsettled, and gives us well-ascertained facts which will be of great use for future reference, and partly because it presents a most praiseworthy example of the right mode of settling questions concerning which differences of opinion are found to exist among members of any farmers' club, or among farmers at large—members of the great, though unorganized, Farmers' Fraternity. If the far-famed Farmers' Club of the American Institute had adopted a similar plan for the settlement of those differences of opinion as to seed corn, which O. K. so appropriately remarked upon in the January No. of this journal, and in the weekly issue of Dec. 7th of last year—that is, if the members had made provision for testing their opinions and settling their differences by a series of carefully-conducted experiments, they would have done better than they did. A great step in advance would be taken, if all farmers' clubs would imitate the example of the club at Southboro', and whenever differences of opinion or practice are found to exist among the members, some provision were made for settling those differences by submitting them to the test of accurate and faithful experiments. That is the true way to settle such differences. Thanks, then, let us all award to the Farmers' Club of Southboro', for the praiseworthy example it has given of the right and proper way to settle differences of opinion and practice among farmers, and to advance the interests of agriculture and agriculturists.

MORE ANON.

THE EDDYSTONE LIGHTHOUSE.—The Eddystone Lighthouse has now withstood the storms of a century—a solid monument to the genius of its architect and builder. Sometimes, when the sea rolls in with more than ordinary fury from the Atlantic, driven up the Channel by the force of a southwest wind, the lighthouse is enveloped in spray and its light is momentarily obscured. But again it is seen shining clear like a star across the waters, a warning and a guide to the homeward bound. Occasionally, when struck by a strong wave, the central portion shoots up the perpendicular shaft and leaps quite over the lantern. At other times a tremendous wave hurls itself upon the lighthouse, as if to force it from its foundation. The report of the shock to one within is like that of a cannon; the windows rattle; the doors slam; and the building vibrates and trembles to its very base. But the tremor felt throughout the lighthouse in such a case, instead of being a sign of weakness, is the strongest proof of the unity and close connection of the fabric in all its parts.—*Lives of British Engineers.*

For the New England Farmer.

SMALL AND LARGE FARMS.

BY JUDGE FRENCH.

England produces an average of about 28 bushels of wheat to the acre, while France produces about half that quantity, and the United States considerably less than France. Why is this so? An Englishman will answer at once that it is because in England the land is owned by a few large proprietors, while in France and the United States it is divided into small tracts among many owners. In England, the real estate of a person dying intestate all descends to the eldest son, while in France, as in this country, it is equally divided among all the children. In England, the tendency of the laws is, to increase the land of the land-owner, to make the rich richer, and if not to make the poor poorer, at least to keep him always as poor as he now is.

Lavergne, in 1855, estimated that there were about 200,000 farmers, that is, persons who occupy as tenants of others, in England alone, occupying an average of 150 acres each. Of these, about one-half cultivate their farms themselves, with the assistance of their families. In France, besides the five or six millions of small holdings, below twenty acres each, there are four or five hundred thousand averaging fifty or sixty acres each, and many very large estates, especially near Paris. The difference between the actual extent of the farms, *as occupied*, in England and elsewhere, is usually exaggerated. A few immense land-owners are referred to as illustrations of British agriculture. The estate of the Duke of Sutherland, the largest in Great Britain, contains 750,000 acres, but this is in the North of Scotland, a wild and rough country, which does not admit of the fine cultivation of the lowland counties. The immense estates of the Duke of Northumberland are situated mostly in the county of that name, one of the most mountainous and least productive. It is not usually on those immense estates that we find the most profitable cultivation. The large proprietors do not usually manage their own estates, or even keep them much in their charge. They are divided off into farms of 100 to 1000 acres, and leased, and the tenant or farmer occupies them as if they were his own. Often, indeed usually, there is no written lease, and the tenant goes on from year to year for a generation, under a sort of custom, and at his death, his widow or son continues in the same occupation, so that the homes of English farmers are even more permanent than those of American farmers. Now, if each of these farmers owned his farm, would he not cultivate it as well for himself and the country, as he now does?

It has been often said in England that the best lease is that which makes the tenant most like an owner. Yet, we observed while in company with

English farmers, that they supposed that a tenant-farmer cultivated better than an owner. We were struck with this fact, when travelling through Lincolnshire with some very shrewd farmers. "There," they would say, "is a farm owned by the occupant; if he paid rent he could not afford to raise such poor crops."

CAPITAL NECESSARY.

The secret of this matter seems to be this. To cultivate land profitably, in an old, long settled country, it must be cultivated well and systematically, and to do this requires capital. A farmer in England, who expends the most of his money to buy a farm, has not enough left to cultivate it liberally. A thousand-acre farm in Lincolnshire requires about $50,000 capital, to enter upon and stock and manage it to the best advantage, as tenant merely. It is not the extent of the farm, but the means and skill to cultivate it in the best manner, that make it profitable. Put upon a Lincolnshire farm of this extent, a farmer with small capital, and he must ruin the farm and himself. He cannot buy stock, tools and manure, nor employ labor requisite to make it productive. The farmer with small capital had better remain upon a small farm. There are certain obvious advantages in farms of not very small extent. Costly labor-performing machines, such as steam-engines for threshing, and the like, could not be owned to advantage by small proprietors, and labor can be better systematized on a large than a small farm. The practical objection to the English system of farming is not so much to its agricultural results, as to its oppression of the laboring classes. The laborer in England is generally poor, ignorant and degraded, compared with any class of laborers which we have in New England, and so long as the present laws of property continue, he must always remain so. English agriculture is profitable to the tenant.farmer, and to the land-owner, because the poor laborer who does the hard work gets no just recompense for his labor.

THE ISLAND OF JERSEY.

This little island, although governed by England, is not subject to the English laws as to inheritance; but the old Norman law, by which each child inherits equally the land of the parent, still prevails, by a sort of custom, and has prevailed for nine hundred years. This is the island from which came the famous breed of Jersey cows. The effect of their laws has been to divide the land into very small holdings, a farm so large as forty acres scarcely being found on the island, and most of the farms containing only from five to fifteen acres. This island, thus divided, is cultivated like a garden. It is rented at an average of twenty to twenty-five dollars per acre annually, and the farmers live in comparative comfort.

FRANCE.

Lavergne says that in France, cultivation is generally better in those districts where the small properties predominate, and that it is the same in Belgium and Germany, and, indeed, everywhere else, except England. The fact is, that England, though as a nation enormously in debt, yet has immense resources. She is not an agricultural nation, but a manufacturing and commercial nation, and she takes the wealth realized from other sources, and invests it in her soil, and so develops its resources. France is more an agricultural nation—she cultivates far more acres for an equal quantity of grain, she keeps far less stock on the same number of acres, and produces far less of green crops in proportion to her grain. Her error is like ours. She occupies too much land for the capital she employs. This may be excusable in Americans at the West, on land which costs nothing, but it is ruinous on old and valuable lands.

France has expended her treasures, for a half century or more, in revolutions at home, while England has had peace within her own borders. Like a farmer in a long law-suit, France comes out poor; and finds the land has suffered from neglect, while its title was in controversy. She is now living *as she can*, till she recovers herself, and can invest labor and capital in the culture of her soil. She is an illustration, with her fine soil and climate, and low agricultural state, of the saying of Montesquieu, "It is not fertility, but liberty, which cultivates a country."

Our conclusion is, then, that a well-cultivated farm is most profitable, whether it be large or small, and that the productiveness of land does not necessarily depend much upon its being owned or occupied in large tracts. It is capable of mathematical demonstration, that with our prices of labor and of products, the English system of farming, with their rents of land, could not support itself, in this country. The cheapness of our land ought, however, to nearly or quite compensate for the higher price of our labor. Certainly, the high price of labor is no reason for our employing it foolishly, and it is an additional reason why we should employ animal and steam power, and improved implements, and those ought to compensate for the lower cash price of our products. The great hindrances to our agriculture are want of capital and want of permanent occupation, or the spirit of unrest which unsettles all our plans.

Farming is still the best business in the country, taking the average throughout, and certainly it is the business which admits of most improvement.

Value the friendship of him who stands by you in the storm; swarms of insects will surround you in the sunshine.

For the New England Farmer.

NIGHT STORM.*

BY R. F. FULLER.

Of all the year, of all the years,
It was the coldest night.
A wintry tempest stunned the ears,
And smote upon the sight;
A cloudy pillar moved before,
The vanguard of the wind;
Whose cohorts, with increasing roar,
A legion, rage behind.
Down to the bulb, insensible
Before the freezing blast,
Forty degrees the mercury fell;
And spirits sank as fast.
The cloud, that led the coming host,
And checked, awhile, its wrath,
Was torn to shreds, its fragments tossed
And strown along the path,
Now, like an ocean surf, around
Our rural dwelling raves
The air against the firmer ground,
With fury of the waves.
It plucks the snowy shroud away,
And bears it back to heaven;
Clutches the pine and hemlock spray,
Before its fury driven.
Their foliage brief, though fine as hair,
Minuteness hides in vain:
The rude hands of the tempest tear
And scatter it like rain.

Grateful for shelter, as I sought
To sleep, i' the tempest dark—
In judgment, like my house, I thought,
Will prove the Christian ark.
How will the shelterless endure
Its over-powering might?
—My God! and how will all the poor
Bear with the storm, to-night?
The sailor, on the frenzied sea,
Who climbs the bowing mast,
Kind Father! we commit to Thee—
O! save him from the blast!
The poorly-housed and poorly-clad,
With little fire to warm—
Great God! to think of them is sad,
In this ferocious storm!
We pray for them—we can no more,
At this inclement hour:
Shield from its fury, we implore,
Or temper, by thy power!
—And may the shelter, which we need,
Earth's tempest to abide,
To Christ, the Ark of safety, lead,
From the last storm to hide!

* Written with reference to the gale of February, 1861.

For the New England Farmer.

A PLEASANT RIDE, AND A WELL REGULATED FAMILY.

Well, what of that? Don't every body now have pleasant rides, and is not New England full of such families? Not exactly so. Our ride was peculiarly pleasant. Good company, *all farmers*, good horses, good sleighing, and a good object.

On Saturday last, a few of us visited the barns of H. H. PETERS, Esq., of Southboro'. We were so fortunate as to find him in his favorite element, superintending his beautiful herd of Ayrshire cattle. He received us with his usual urbanity, showing us his whole stock, and answering our numerous questions as though he was perfectly familiar with each member of his family.

His whole stock, except seven pairs of oxen, are thorough bred Ayrshires. We were first introduced to the younger members of the family. With their mild, pleasant countenances and bright, expressive eyes, they seemed to say, Glad to see you, gentlemen; we are always treated kindly, and if you are master's friends, you are ours, and we bid you welcome. They were tied very close to each other but there was no quarrelling, as is the case in some families, no teasing for more or better; their whole deportment gave evidence of the power of kind treatment, united with good care and systematic feeding.

The oxen next claimed our attention—seven pairs, from three years old and upwards, weighing over 3600 lbs. to the pair. Next came the cows—all handsome, round, small-boned animals, with the marks of excellent milkers. Mr. Peters remarked that some of them had given 23 qts. per day. The bulls, horses and sheep completed the family, 100 in all, including about 10 or 12 sheep. They are all kept on steamed food, and fed three times per day. The steaming is performed four times per week, at an expense of one shilling each time for fuel. Mr. Peters is satisfied that he keeps his stock cheaper than they could be kept in any other way. Certainly, nothing is wasted. We all left the premises very much gratified, and with the impression that farmers generally, and especially the trustees and superintendents of our State farms, might profit by a view of the perfect neatness, order and system of the whole arrangement.

ONE OF THE COMPANY.

Westboro', Feb. 12, 1862.

For the New England Farmer.

MANAGEMENT OF NEAT CATTLE IN WINTER.

1, Their cribs should be so separated by partitions that every animal would be sure to receive all that is fed to him, without any danger of being robbed by others. I think this first in importance, because in feeding the animals left without partitions you do not know which eats it, the stronger robbing the weaker, consequently making the weak still poorer.

2, They should be fed at regular intervals, all they will eat up clean; that is, they should have their regular meals. I commence in the morning, feeding little at a time, and keep them eating until I think they have enough, and then at noon and night, being careful to feed at the same hour of each day. I had rather they would be fed but twice, than to feed out of the regular time.

3, They should have a variety. Where the feed is composed of meadow hay, wheat and oat straw, corn fodder, &c., as it generally is through the country, it should be fed alternately; if a portion of each kind is given them every day, they will eat and relish it better. I can remember when my father used to feed out all his corn fodder the first thing, and then the meadow hay, &c., feeding only one thing at a time; consequently, all the fodder was rejected but the leaves, and thrown out with the manure; but when given as a change, they will eat it all up clean.

4, Roots are one of the best things to feed young, growing cattle in winter. They tend to

keep them loose, and enable them to extract more nourishment from their fodder. They should be fed regularly each day. From my experience, I think the ruta baga is the best to feed to young cattle. I think they contain something that cattle require that the others do not. Potatoes and carrots are very good. I have had young cattle fed with them gain more in the winter than they did in the summer on grass.

5, Watering and exercise. In watering, care should be taken that every animal drinks all he wants. They will naturally take all the exercise in the yard, they need at the time of drinking. I keep them in their stalls all the time except when out to drink. The more they are kept out in the cold the more hay they will require, and by being kept up all the time the manure is all saved.

The farmer cannot be too regular in tending his stock through the winter. Anything that is not worth doing well is not worth doing.

West Newfield, Me., 1862. J. T.

EXTRACTS AND REPLIES.

I am anxious to learn through the *Farmer* the way of treating a cow which appears to run too much to milk. She calved the 2d of this month, and is quite thin of flesh, although bright and smart; gives a ten-quart pail full of milk in the morning, little less at night. She was poorly fed the first of the winter on straw, corn-fodder and poor hay until some two weeks before calving, when she had two quarts of barley bran, scalded, and good hay. When I raise barley I have it bolted; the flour is used, and well liked in the family. I have raised and used it for six years, and find the value of that grain far beyond what I expected. I like it to raise on account of its being good to seed with, as I get a far better catch than with any other grain. I get about half as many pounds of fine flour as from common wheat, and find the bran to be heavier than that of wheat, therefore I value barley more than corn. I continue giving this bran to my cow, but rather think it is the barley that runs her to milk. We churned the first week's gathering of cream, which made 11 lbs. 3 oz. of butter.

Will you, or some of your subscribers, inform me of the cause of my cows' eating boards, &c., last winter, and this winter not attempting to do so?

In regard to cows doing well in calving, if people would feed cows extra some two weeks before they drop their calves, as a general thing, there would be no trouble; it matters not much what they are fed upon, but I prefer a little meal of some kind; if I should have my choice, I should feed barley. T. S. F.

Felchville, Vt., 1862.

REMARKS.—We know of no way to reduce the milk but to reduce the feed. Feed on good hay alone, for a time.

It is not well settled what it is that causes cows to chew bones, boards, leather, &c. Some say it is occasioned by a want of bone-making material, the phosphate of lime, perhaps. If this habit were confined to cattle that are poorly fed or thin in flesh, we might suppose that it grows out of a want of a proper quantity of nutritious food; but such is not the case. We have as often seen it in thrifty and well-conditioned cows. It can do no harm to mix a little *bone-dust*, that is, ground bones, with meal, and feed to the animal affected, two or three times a week. Dr. DADD says—"It is well known that phosphate of lime, potass, silica, carbonate of lime, magnesia and soda are discharged in the excrements and urine of the cow. Supposing the cow's bones to be weak, it is possible that the gelatinous elements preponderate over those of lime, soda and magnesia."

BUGGY PEAS.

It has been often said that "It is better late than never," to do good. In looking over the monthly *Farmer* for 1860, I noticed in the July number an article headed "Buggy Peas." I think I can give the writer and many others some information that will solve the mystery as to how the bugs got into his phial. Many years ago, I discovered a small, bright red nit or egg, placed on the outside of the pea-pod, when about half-grown, opposite each pea, and have seen the same on the pea inside the pod. Also, when the peas were shelled green, a small puncture on one side of the peas; on digging into the pea, I found a small worm which becomes a bug after the peas are fully ripe. The egg is, I have no doubt, deposited by the old bug, as I have seen them flying among the peas in the field. The only way to prevent peas being buggy is to sow early or very late. I have heard it remarked that to prevent peas being buggy, they must be sown in the old of the moon in May. I suppose everybody knows the moon has nothing to do with the bugs. It is evident to me that those sown early get out of the ways before the old bugs thaw out, and that the bugs have had their day, and are gone before the late sown are grown. JAMES PALMER.

South Hampton, N. H., 1862.

THE SONG OF AN OLD PITCHER.

Let the wealthy and great dwell in splendor and state,
I envy them not, I declare it;
I eat my own lamb, my own chickens and ham,
I shear my own fleece, and I wear it.
I have lawns, I have bowers, I have fruits, I have flowers,
The lark is my morning alarmer;
As true freemen now, pray God speed the plow,
Long life and success to the farmer.

The above I have never seen on paper. I learned it when a child, from an old-fashioned French jug, now called pitcher, in my father's house, more than sixty years ago, in the Emerald Isle. A FEMALE READER.

South Groton, 1862.

SEEDING TO GRASS.

We, the sons of the turf, who get our living by digging in the dirt, need reminding of our duty every month in the year. Where is the farmer, one in a hundred, be the number of his acres more or less, who can say, "I have one half acre doing all it might do." When we manure in the hole, the seed comes in contact with it, as it should do; but when we plow in manure five or six inches deep, and then sow grain and a little fine grass seed on the very surface, can this fash-

ion be good policy? There is no way to make so much grass with so little manure as the following: Plow up worn-out grass land as soon as may be after the summer drought has past; pulverize well; manure sparingly; sow two or three sorts of seeds, and give it a shallow covering; thus the little manure, neither too deep nor too shallow, does all it can do, and no crop is lost.

Elliot, Me., Feb. 1, 1862. A. ALLEN.

—

KEEP THE BACK COVERED.

One prevalent way of taking cold, is from exposure of the upper portion of the back while in bed. We divest ourselves of the warm clothing we have worn during the day, put on a thin night-dress, go to sleep, and perhaps awake in the night feeling as if an iceberg lay between our shoulders. This is particularly the case when two persons occupy the same bed—each one facing outward, the bed clothes are drawn from the backs so as to expose the lower part of the neck and between the shoulders to the cold air of the room, the lungs being so near that part of the body as to be sensibly affected by its exposure. We think a great many severe colds are taken in this way that cannot otherwise be accounted for.

—

OATS FOR SHEEP—TO CURE A CALF THAT SCOURS—DWARF BROOM CORN, ETC.

2. Will you, or some of your reader, inform me how many oats it will do to feed to ewe sheep at a time, and if they will hurt them?

2. What will cure a calf that scours?

3. If any subscriber of the *Farmer* purchased the Dwarf Broom Corn Seed advertised the last spring, will they please give the results of their sowing?

4. Please tell me the size of the "Farmers' Encyclopedia," and the number of pages it contains?

Canterbury, N. H., 1862. S. E.

REMARKS.—1. A pint of sweet oats per day to a sheep will be excellent for it.

2. "Scours," or diarrhœa, is not always a disease, but an effort of nature to get rid of that which would be injurious, and, therefore, a mild purgative of castor oil, or something else, is good. This may be followed with two or three messes of warm flour gruel, at the same time not allowing the calf to take much milk from the cow.

4. The Farmers' and Planters' Encylopedia contains 1179 pages, royal octavo size.

—

SEED CORN.

We cannot give the name of our correspondent who wrote over the initials "E. R.," upon the subject of seed corn. We have many inquiries of this kind. It would be more pleasant and profitable, if correspondents would give their full address when communicating to us.

—

"C. T. F.," North Bridgewater, Mass., is informed that we know nothing of the expedition to go into the "wool business" at the West, beyond what was published in the *Farmer* to which he refers.

For the New England Farmer.

EXPERIMENTS WITH CORN.

I saw a statement by Mr. Henry H. Peters, of Southboro', Mass., in relation to corn, in the *Farmer* of January 18, I think. I have a kind of corn that is hard to beat, as to the amount of shelled corn that a basket of ears will make. A few days since I shelled some for bread meal, and selected the best ears, as I usually do. I measured and weighed: First I weighed out 70 pounds, which I supposed would make 1 bushel of shelled corn; I shelled it carefully, measured up a bushel, and it weighed 60 pounds; then weighed the rest which was left, it being 6 ounces. The cobs weighed 9 10-16 pounds. The above I took from a bin on the east side of my corn house. I then took a basket full from the bin on the west side, so I picked out a bushel basket of ears which weighed 50¼ pounds; I shelled it carefully as I did the other; the corn I measured in sealed measures, and the amount was 23¼ quarts, which weighed 44 pounds. The cobs weighed 6½ pounds, which is at the rate of about 8¾ pounds of cobs to 60 pounds of shelled corn.

As to the kind of corn, I know of no particular name for it: it is eight-rowed, yellow, rather small in size, but the ears are good and fair length.

For years past I have seen much in the *Farmer* about corn being diminished in weight by being cut up and stooked before it is quite ripe, or hard. I cut and stook my corn as soon as it gets fairly glazed over, and when many of the small ears are in the milk. I think it does not injure the corn, but is a great saving of labor, and there is much in favor in benefiting the fodder, as, if corn is cut and stooked in the right time, and in the right manner, there is a great advantage over the old-fashioned way of cutting the top stalks and letting the corn remain in the field until husking-time.

I have shelled a bushel of corn from cobs that weighed less than 8 pounds.

A GOOD HEIFER.

Mr. Wm. Hooper, of this town, butchered a heifer 21 months and 10 days old, which weighed 622 pounds. H. ALLBE.

Walpole, N. H., Feb., 1862.

CONTINENTAL MONEY.—Mr. Lossing, in his Field Book of the Revolution, gives a scale of the depreciation of the Continental money. In January, 1777, the paper currency was at five per cent. discount. In July it was at twenty-five per cent. discount, and before the end of the year three dollars in paper would not command a silver dollar. In 1778 the paper currency continued to depreciate, so that in April four dollars in paper were equal to one in coin. In September the ratio was as five to one, and at the close of the year was six and a half to one. In 1779 the depreciation rapidly continued. In February the ratio was eight dollars and a half of paper to one of silver, in May it was twelve to one, in September eighteen to one, and before the close of the year a paper dollar was only worth four cents. In March, 1780, a paper dollar was worth three cents, in May it was worth two cents, and in December seventy-four dollars in paper was worth one dollar in silver. At this point the historian stops.

THE PARSNIP CROP.

The *carrot* crop has justly become quite popular as a feed for stock. It is cultivated all over New England for this purpose, but in the greatest quantities in the neighborhood of large towns, or cities, where a good many horses are kept. Stable-keepers are confident that they are an economical food, and purchase them by the ton, at prices varying from eight to twelve dollars. This practice has attracted the attention of many farmers, and they, also, now feed their one, two, or more horses, daily, with a mess of carrots.

FIGURE 1.
Common Long-rooted Parsnip.

The *Parsnip*, — though pronounced by most persons as far more palatable than the carrot,—has not yet found its way to the feeding-troughs of the stable-keepers or of our neat stock. It strikes us as singular that a vegetable so nutritious and delicious to the human palate, and at the same time so highly relished by our domestic animals, should not have long ago come into popular favor. It certainly is not because the carrot can be more easily cultivated than the parsnip,—that it possesses higher nutritive properties, or that it is more eagerly sought for by our stock. In all these particulars the parsnip has the precedence with one single exception — the seed does not germinate so readily and certainly as that of the carrot. In other respects it has advantages over the carrot. It will grow on a wider range of soil, stand drought longer, and the young plants are so conspicuous as to render the first thinning and weeding altogether easier than that of the carrot.

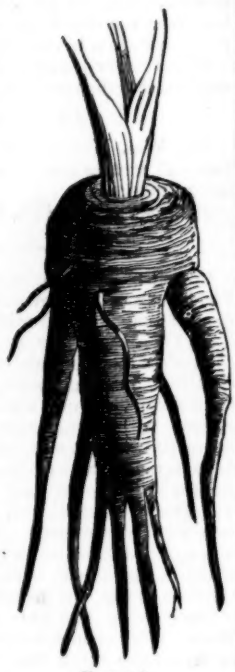


FIGURE 2.
Fingers and Toes.

Compared with the turnip, the parsnip contains about double the quantity of heat-giving and fat-forming compounds, such as oil and starch. This renders it particularly suitable as a food for fattening purposes, or for milk-producing animals.

The keeping qualities of the parsnip are equal to those of any other root we produce. If stored properly in a cool, moist (not wet) cellar, they will remain plump and brittle for seven or eight months.

In Wilson's Farm Crops it is said that the parsnip, compared with the carrot, "presents a superiority in many respects as a crop for feeding purposes. It contains on an average about 5 or 6 per cent. less water than the carrot, which materially improves its keeping qualities, the difference being made up by an additional proportion of solid extractive matter, by which its general feeding qualities are proportionably increased. The flesh-forming compounds, too, are nearly double those contained in the carrot; while the oil, starch, &c., in its composition, would indicate that for fattening as well as for feeding purposes it is of greatly superior value."

FIGURE 3.
Hollow-Crowned Parsnip.

SOIL AND CULTIVATION FOR THE PARSNIP.

Any rich, deep, well-drained soil, whether it be of granite formation, or sandy or clayey loam, will produce good crops of parsnips. A decidedly gravelly soil would not be favorable. The soil should be deep, because the plant loves to penetrate the ground with its long, tapering root, and throw out hair-like feeders into the surrounding soil. When it has this opportunity, and the soil is sufficiently enriched, the parsnip will send down one main root, such as is illustrated in Cut No. 1; but without these advantages, it will be quite likely to assume the form of Cut No. 2, dividing itself off into numerous branches, spoiling it for the table, and depreciating its value even for stock. This is called running into "Fingers and Toes."

Cut No. 3 is *The Hollow-crowned Parsnip*. It is less symmetrical in shape, and has a much greater diameter at the crown, or top, which is slightly concave. The root is of a yellowish-white color, tapering from the top, and not so long as the Long-rooted variety, No. 1.

Cut No. 4 illustrates, 1, The common flat body moth that infests the parsnip.

FIGURE 4.
Common Flat Body Moth.

Figs. 2 and 3, the moth at rest, and of the natural size.

Fig. 4, caterpillar of the moth.

Figs. 5 and 6, the pupa of natural length.

Fig. 7, the pupa rolled up in a leaf of the plant.

In cultivating a field crop of the parsnip, the rows should be far enough apart to use a horse-hoe or cultivator, say two and a half feet, which will secure a crop for about one-half the cost required to work them by hand. The plants in the rows ought not to be nearer than six or eight inches of each other. The ground should be frequently stirred,—especially if the season be a dry one,—and if a subsoil plow were passed through between the rows once or twice during the summer it would considerably aid the crop. By this process we have raised parsnips at the rate of a *thousand bushels* to the acre, nearly every one of which was long, smooth, and almost as white as snow. The only difficulty in securing the crop was in digging; the man doing that work saying that he "*could dig post holes* about as fast." We hope many of our farmers will commence in a small way to cultivate this valuable crop. If they do, we suggest that twenty-four hours before sowing the seed, they wring out a piece of cotton cloth in warm water, and wrap the seed in it, which will very much facilitate its germination.

SINGULAR FACTS IN HUMAN LIFE.—The average length of human life is about 28 years. One-quarter die previous to the age of 7; one-half before reaching 17. Only one of every 1000 persons reaches 100 years. Only six of every 100 reaches the age of 65, and not more than one in 500 lives to 80 years of age. Of the whole population on the globe, it is estimated that 90,000 die every day; about 3700 every hour and 60 every minute, or one every second. These losses are more than counterbalanced by the number of births. The married are longer lived than the single. The average duration of life in all civilized countries is greater now than in any anterior period. Macaulay, the distinguished historian, states that in the year 1685—not an unhealthy year—the deaths in England were as one to 20, but in 1850, one to 40. Dupni, a well known French writer, states that the average duration of life in France from 1776 to 1843, increased 52 days annually. The rate of mortality in 1781 was one in 29, but in 1850, one in 40. The rich men live on an average 42 years, but the poor only 30 years.—*Free Nation.*

For the New England Farmer.

WHEN SHALL WE PLOW?

MR. EDITOR:—I find this question propounded, and partly answered, in your issue of November 9, by Mr. George Campbell, of West Westminster, Vt., who seems to favor fall plowing on account of its forwarding the spring work when farmers are hurried, and probably killing many worms and insects by exposing them to the frost, &c. He notes, also, that the soil will be pulverized by the action of frost and the atmosphere. Most will readily admit his views as true, and yet not be fully persuaded that it is good economy to seed this fall plowed land in the spring, without again plowing most thoroughly. Weeds and foul stuff will be sure to vegetate as soon as the frost is out in the spring, and no process for putting in grain is so effectual an exterminator as a good plowing. Then, again, lands lying several months after being plowed, become packed by repeated rains, and are almost as hard in the spring as if they had remained unplowed in the fall.

The plow I regard as the farmer's great *fertilizer*. It is impossible to use it too often on our fields where the *sod has decayed*. Speed the plow, should be the motto of every farmer. Nothing like it to counteract the effects of drought. Nothing like its free use in securing a bountiful harvest. I say plow! Plow in the fall—plow in the spring—plow at all times when you can. Can't plow too often.

As to fall plowing of sod land, very much depends upon the character of the soil. A stiff clay would undoubtedly be better for fall plowing, as the winter's frost would greatly subdue it. But a sandy, or vegetable loam, I think, had best be plowed in the spring, as near the time of planting as possible.

My reasons for this are, that they do not receive but little advantage from winter frosts when plowed, and do not admit of replowing in the spring, as by so doing we would be liable to disturb the sod and waste much of its value. If not plowed in the spring, much more labor is required to keep the weeds down through the summer.

I will here refer to a piece of meadow, of four acres of vegetable loam, my father commenced plowing in the fall, for the purpose of destroying worms he knew infested it. It so happened that frost set in when he had about half plowed the piece, and the remainder was plowed in the spring; the part plowed in the fall was, as to quality, esteemed a little the best of the field. The spring plowing was done just before planting; the whole field was thoroughly harrowed, the fall-

plowed part requiring much more labor to prepare it, and all through the season double the time was required to keep it clean of grass and weeds. At harvest it was judged by competent men that the fall-plowed piece would yield forty bushels to the acre, and the spring-plowed fifty—or ten bushels more.

One of my neighbors commenced plowing early in March on a piece of dry land, for the purpose of testing the question as to the advantage of plowing just before planting. He left alternate lands or strips unplowed through the piece, until he was ready to plant, the first of May. The result was decidedly in favor of the last plowed pieces in the crop, as well as in the care of it. The above facts have been repeatedly verified in my own experience, so that I have come to consider them incontrovertible. I hope this subject will not be passed by in silence by observing farmers, but that we shall have their views and experience to enable us wisely to answer this all important question to many—when shall we plow?

Rochester, Mass., Nov., 1861. O. K.

COE'S SUPERPHOSPHATE OF LIME.

During the last four or five weeks, we have been favored with several articles upon this subject, from correspondents in various portions of the State, giving their experience in the use of this phosphate as a fertilizer. We have also been requested to state what the results of its use have been on our own farm.

Last spring we procured several bags of this lime of PARKER, GANNETT & OSGOOD, and used it upon various crops, and with such results as to decide us to try it again, which we mean to do the coming season. It was used, side by side, with various other agents, such as *beef scraps, corn-meal, woolen rags, cobs soaked in urine, guano*, and a compost of *night soil*, and it was not excelled by any of them, excepting the latter. The whole field was moderately dressed with hen manure. Where the night soil compost was used, the corn was heavier than on any other portion of the field. We used the superphosphate on peas, beans, turnips, beets, carrots, parsnips, cabbages, and other plants, and found it answering an admirable purpose with them all. But we gained, especially, what is most desired, an *early start in the corn crop*, which is often the turning point of profit or loss in that staple article. Where it was properly applied to this crop it stimulated germination, brought the corn out of the ground with stocky and vigorous stems, and gave it an unusual vitality for several succeeding weeks. Any fertilizer that will do this, is of decided importance to the farmer. But a serious mistake is often made in its application. Instead of spreading it over a surface of 12 to 20 inches, and thoroughly mingling it with the soil, it is thrown down in a mass, and the seed cast upon it, so that if the tender germ is not checked, it grows away from the phosphate into soil that has not been fertilized by it.

During a journey into New Hampshire in the month of June last, a good farmer invited us to look at some experiments he was making with this fertilizer. Side by side, on good land, he had manured the rows, one with a common shovel full of excellent barn manure, and the other with a gill of Coe's superphosphate, and where the latter was applied, the corn had made an average growth of a *foot* more than the other. In another town, in a field of corn which we were called to look at, the difference was nearly as striking. We do not suppose that this difference would continue through all stages of the crop, but it *ensures that early growth* which will generally secure the plants from unseasonable frosts, and thus give us a crop.

These results so much increased our interest in the article, that we made investigations sufficient to satisfy us that the article is really what it purports to be,—that is, *bones dissolved by sulphuric acid*, by a process so perfect as to preserve *all the animal matter* contained in the bones as well as the bone itself,—and that no other matter is introduced to increase the bulk and lessen the fertilizing power of the principal agents.

In November last, we applied 200 pounds to an acre of exhausted pasture, upon which we intend to sow clover seed as soon as the snow is off, and harrow the ground. We have, also, applied two quarts of the superphosphate to each of 75 young apple trees that stand in grass land, scattering it over a diameter of 12 feet immediately under the tree. The results of these experiments will be carefully watched and reported to the reader.

NEW METHOD OF SMELTING IRON.—A Belgian is reported to have discovered a new method of smelting iron, which promises great results. The essential principal consists in a process of exhaustion in preference to a blast. The result is that less time is required to liquefy the metal than in the ordinary process; that when cast it is surprisingly superior in quality to ordinary iron; that, bulk for bulk, it weighs much heavier; and that excellent cutlery can be forged at once from it, without the intermediate process of conversion into steel. A leading English iron master is building a furnace for smelting on this new plan, and specimens will ere long be in the market.

WEIGHT OF MANURE.—A solid foot of half-rotted manure will weigh, upon an average, 56 pounds. If it is coarse or dry, it will average 48 pounds to the foot. A load of manure, or 36 cubic feet, of first quality, will weigh 2,016 pounds; second quality, 1,728 pounds. Weight to the acre—eight loads of first kind, weighing 16,128 pounds, will give 108 pounds to each square rod, and less than 2½ pounds to each square foot. Five loads will give 63 pounds to the rod. An acre containing 43,560 square feet, the calculation of pounds per foot, of any quantity per acre, is easily made.

LEGISLATIVE AGRICULTURAL SOCIETY.

REPORTED FOR THE FARMER BY D. W. LOTHROP.

The eighth meeting of the series was held on Monday evening last at the State House. The subject for discussion had been announced to be, *Fruit Culture;* but Mr. Wilder being absent and indisposed, Mr. Flint, Secretary of the State Agcultural Board, called the meeting to order, when a motion was carried to postpone the subject of Fruit Culture and adopt that of *Sheep Husbandry.*

Mr. FLINT, being in the chair, made a few introductory remarks. He said sheep husbandry was important, generally, to the farmers of New England, and had been to those of Massachusetts; but in this State, within the last twenty or thirty years, it has declined. The cause of this, he thought, was to be found mainly in the introduction of the fine-wool Merinos, and their subsequent crossing with our common sheep, so that neither fine nor coarse wool was the result. Dogs were also a great drawback to sheep-raising; but now we have a stringent law for its protection. In the eastern part of the State the raising of mutton is a profitable branch of business, and for this purpose he recommended the Cotswolds and South Downs. He would not enter fully into the description of the various breeds of sheep—leaving that to others—but in the western part of the State he advocated the Merinos for their fine wool. Some farmers had thought that sheep improved the pastures where fed, but in our western counties complaint had been made that they run them out. Upon this point he hoped others would speak.

Mr. HOWARD, of the *Boston Cultivator*, observed that much improvement had been made in sheep husbandry—particularly in a national point of view. English poets had sung of the beautiful white flocks of their land as the glory and strength of the nation, and he thought there was much truth in it. Lavergne, a French writer, had had his attention arrested by the greater number of domesticated animals in England than in France, particularly of sheep, and was favorably impressed with their economy, though some others thought differently. Throughout Great Britain—a territory only one-third larger than some of our States—there were fifty millions of sheep; and they are raised for the purpose of occupying and improving their waste lands, which abound in Wales and Scotland. They have been kept on the same soil for years, and it has sustained them. Mr. H. spoke well of sheep manure, and considered the question as to sheep running out the pastures in this country. In England, sheep pastures are continually increasing and improving; but here our summers are very hot, and suffer for want of moisture, and this condition is aggravated where they are fed too closely, as is often the case. Nevertheless, sheep have a tendency to improve the land in spite of close feeding.

Mr. FEARING, of Hingham, observed that if the man who made two blades of grass grow where only one grew before was a benefactor, so was he who advanced sheep husbandry. He would look at the subject in a moral point of view. Our young men were leaving the towns and rushing into the large cities for business; yet we have now too many merchants, lawyers and physicians, and need more men who earn their bread by the sweat of their brow. Small places are going down and large ones rising. After the closing of the war, many of our young men may feel like emigrating; but we must try to retain them by offering them inducements to remain and cultivate the soil. Having some land much neglected, Mr. F. observed, he was induced by Daniel Webster to place sheep upon it. Accordingly he rebuilt his walls, and placing two rails upon them, introduced sheep; his neighbors did the same. Dogs were troublesome; yet in Hingham they had clubbed together and fought them out with good results. As to the effect of sheep on the pastures, he thought well of them. He had one of twenty acres, covered with briers and bushes, which he burnt off and put in sheep, where they did well, though his neighbors said they would starve; the briers have disappeared. He thought sheep profitable; would prefer hills for pastures; said rain storms injured sheep, and advocated warm barns with good keeping. The South Downs he regarded the best breed, and their wool was good. They should be kept in flocks of twenty-five or thirty, and his own were healthy from good keeping. Lambs for the butcher, about four months old, brought him three dollars apiece—very cheap. The wool from his South Downs ranged from six to ten pounds. Mr. F., also, again alluded to his sheep barn, which was 20 by 40 feet, with ten feet posts, and an alley running through it, with sheep each side, and their feeding arrangements so constructed that only one could put in his head at once, and they were all fed from the centre. Such a barn could be built for about $250.

Mr. ANDREWS, of West Roxbury, said he had had some little experience in keeping sheep, which might, however, be regarded as accidental. Having planted cow cabbage and rape for thirty cows, it was complained that the cabbage hurt the milk, and this induced him to purchase ninety sheep to feed it off. He spoke well of the profits of sheep—giving some statistics—and concluded that cows could not come up to them. They also improved the pastures where fed, and their manure was very valuable, as was shown on his own land. He closed by reading an article upon this subject from the *Boston Cultivator*, copied from the *Genesee Farmer.*

Mr. WETHERELL, of Boston, alluded to a farmer in Hampshire County, who purchased seventy-five or eighty Cotswold sheep at four cents per pound—his object being to test sheep-feeding over that of oxen, and he felt encouraged. He could sell their carcasses at eight cents per pound. Allusion was also made to another gentleman who raised lambs of the Oxfordshire Downs, and could sell them for $5. This breed he thought better for raising spring lambs than the South Downs; but the speaker believed both were good. Why pastures in which sheep were fed were better than those where cattle were kept, was in a measure attributable to the fact that the sheep were kept in them the most of the time, and to the more equal diffusion of the manure. Farms far from a railroad or market, he observed, had been nearly depopulated of men, and those of the best quality. Poor land with no market was intolerable. In such places sheep husbandry might do well; let a man raise hay enough to feed in the winter. Forest trees are not profitable on poor land, but raising sheep might be, if the land were not too wet. An acre of corn would buy all the coal a farmer would use in winter. There was some profit in growing wool, but more, in raising mutton.

Dr. LORING, of Salem, admitted that sheep husbandry in Massachusetts had greatly declined within half a century. But what is the cause of it? Mr. Flint attributed it to the introduction of fine-wool sheep, and their degeneration by crossing. But the speaker thought differently, and observed that sheep felt their feeding and treatment very much. Farming declined some years ago in Massachusetts, and sheep felt the decline first. They became very small, and were abandoned. Dogs, he thought, not so great an evil as some; sheep will flourish in spite of them. The first question to decide is—What shall be the kind of sheep? And, deciding this, they should be kept for profit and not for pleasure. The fine-wool sheep are the best, but large sheep are profitable in rich districts. Yet he doubted whether for the ordinary farmer the coarse wool sheep was the best. He spoke of the Merinos, and the Atwood breed of Vermont. They were cheeply kept—100 eating only 15 tons of hay in the winter. The fine-wool sheep were the best, and he believed no one could gainsay it. Allusion was made to Mr. White, of Framingham, as to the raising of mutton, which was very cheap—Mr. W. getting only from $2,50 to $3,00 per head. Men do not live on mutton, and the fore-quarters were unprofitable. Nevertheless, the hind-quarters were very good. But can we afford thus to raise mutton? Dr. L. spoke of a man in Essex county, who had large, coarse sheep, which he fed at a loss during the winter. Generally, sheep were easily kept, but too many Cotswolds in a flock would deteriorate.

Mr. FEARING thought Dr. Loring wrong about dogs. The loss of sheep by them was in some places discouraging. One hundred thousand dollars' worth in Ohio had been destroyed by dogs. He thought wool and mutton should go together, and fine wool alone he regarded as unprofitable.

Dr. LORING thought dogs a nuisance, but the evil laid deeper. To a question as to what Merino lambs were worth, he replied that fine-wool lambs were not to be sold to the butcher, and mentioned an anecdote of a little boy in Vermont who was taking his pick from some of his father's flock, and having done so, gave his father a ten dollar bill! The latter said it was a good investment.

Mr. WETHERELL again advocated the raising of mutton, and said the fore-quarters of sheep were as digestible as any other, and were used by invalids. We might as well inquire what became of the fore-quarters of beeves. To an extent he favored the raising of large, coarse sheep.

Mr. ROBERTS, of Lakeville, said he had some Oxfordshire Downs, and likes them very much. He sold his lambs from $3,75 to 4,50. From his ewes he got about 8 pounds of wool, and from his bucks 9 to 12. They were more profitable than crops, and he regarded his breed the best. He did not feed his pastures close, but moved his flock from one to another.

Mr. HOWARD spoke of the weight of the fleece of the Merino sheep; it was great, but there was great shrinkage, as it secreted a large amount of animal oil.

The time for closing the meeting having now arrived, the chairman announced *Fruit Culture* as the subject for the next discussion, when the Hon. MARSHALL P. WILDER is expected to preside.

THE FLAX AND LINEN TRADE OF IRELAND.—Belfast, the great emporium of the linen trade, exported in 1860, 65,600,000 yards of linen, and 13,200,000 pounds of yarn and thread. Next in importance to the flax industry, is the trade in sewed muslins, employing about half a million of persons in Ireland. Another manufacture, carried on in Belfast, is important in the consumption of agricultural produce—namely, starch making from wheat. Ten firms use nearly 240,000 bushels of the finest red wheat every year. The weaten starch made by the old fermentative process, is largely used by bleachers, the goods retaining their stiffness longer than if dressed with the rice and other starches. The whole of this business is at present nearly paralyzed, as America was the best market for Irish linen goods, very limited quantities of which have been imported during the past nine months.

THE WIRE WORM.—At the discussion of a farmers' club in Buffalo, Ill., Mr. Franklin Reed said that the ravages of the wire worm could be prevented by putting half of a fresh cob in each hill. The worms would work into this, and leave the corn.

For the New England Farmer.

WATER.

MR. EDITOR:—I have had a little unfortunate experience connected with pipe-laying for an aqueduct; and as a relation of that experience may save somebody from making a similar blunder, and may possibly suggest to many how they can save much labor by a slight expenditure, I will, with your permission, tell my story, hoping also that some one among your scientific readers may be able to enlighten me as to the precise nature of my blunder. When I first came to the place I now occupy, there was for most of the year a flowing spring near the foot of a hill about thirty rods from my house, and in fact there was about an acre of ground kept so wet by a general springiness on the upper side, that none but the poorest of water grasses would grow there. After a few years it occurred to me that, by bringing this water through a pipe to my barn, a double advantage would be secured—the land would be drained, and an easy supply of water furnished for the use of the cattle.

A well was dug about eight feet deep, and a pipe laid, with a drain to carry off surplus water when it should come within four feet of the surface of the ground. Following the course of the pipe, the land descends about fifteen feet in ten rods: then rises again seven or eight feet, then falls slightly till it reaches the place where the receiving tub stands. The water flows through a half-inch lead pipe, the fall, when the water is highest, being five or six feet in coming a distance of thirty rods. With this fall, the pipe will carry at least, four hundred gallons in twenty-four hours. Three-fourths of this is taken away by a waste pipe into a drain about two rods long, and three feet deep, nearly filled with stones, whence it is readily absorbed into the surrounding soil.

I am now satisfied that I made a blunder in laying the pipe so near the surface of the ground, some parts of it being less than two feet deep. I have mentioned that there is a small swell in the ground over which the pipe passes. Of course, the pipe is, for a short distance, higher there than on either side of the swell. Now it happens every season, at the time when the ground is warmest, (and usually at the same time the fountain-head is lowest, and the current less rapid in its flow,) that the delivery of water gradually diminishes and finally ceases altogether, even though there are at the time two feet of water in the well. But on attaching a pump to the pipe, and pumping for half an hour, the water will again flow for a week or two, when the same operation has to be performed over again. In my ignorance I can account for this interruption only by supposing either that some of the gases that are always mixed with water, become separated by the warmth of the water, and rise and remain in the highest part of the pipe, accumulating there till the water is entirely cut off, or else that the effect is produced by the accumulation there of hydrogen gas set free in the oxidation of the lead of the pipe.

At any rate, this is the practical working of the pipe. In the latter part of summer the water has uniformly stopped running, even with more than two feet of water in the well; while at the present time, (middle of February,) though the spring has been, since September, lower than I have ever before known it, the water continues to flow, though so slowly, that it can hardly be detected, not amounting to more than two pailfuls in twenty-four hours.

But even with this drawback, I consider the aqueduct among the most valuable and best paying improvements of my farm. Without any labor or care, there is always ready for use a liberal supply of good water. The expense in this case has been less than the cost of a well and pump would have been. The cash outlay was only about thirty dollars.

Now I believe it would be found, on examination, that a large proportion of the barns of New England might be supplied with water by means of springs and brooks. Where these happen to be on high ground, so that the flow will be direct, so much the better; but science has given us, in the hydraulic ram, a power that will enable us to compel water to run up hill, and so we can take advantage of streams or copious springs much lower than the place where we wish the water delivered. And I believe a judicious expenditure for this purpose would soon be repaid in the saving of labor.

M. P.

For the New England Farmer.

NOTES AND INQUIRIES.

PAINTING THE ROOF OF BUILDINGS.—Upon page 32, January number, current volume *New England Farmer*, is an article about "Important things to know about building," which is suggestive, and upon an important subject; one upon which too little thought is given, in many instances, by those who are erecting buildings for their own or others' use.

It is a too true saying that a large majority of our buildings are built for show, and the present only; especially those built by Yankees; but the day of these things, it is hoped and believed, is fast passing away. But the question is, Whether painting the roof, or shingles upon the roof, is useful, and as much so, as upon the walls of a building?

It is claimed by many who have tried it, that the shingles painted, instead of being "done for a lifetime," as contended, will not last any longer than if not painted, where the paint is put on after the shingles are all laid, and some even contend that they will not last so long as without the paint. I have seen shingles that had to be removed, that were painted, because they were so rotten that they were more like sieves, as far as keeping the water out was concerned, than like a shingled roof; and still to stand and look upon the roof it was "fair to behold"—apparently but little the worse for wear.

The reason assigned was, that the water came in contact with the shingles above where the paint was applied, and followed down under the paint, where it was retained much longer than it otherwise would have been. Consequently, they were kept moist, and soon began to decay upon the under side and in the middle, instead of drying, as they would, had not the water been prevented from evaporating by the paint upon the lower ends only.

How does this accord with your theory and experience, Mr. Philbrick?

The remedy is to paint each course as laid, up

above the ends of the second course, with a thick, heavy coat of paint, and then, to finish off, paint the portion exposed after the roof is thus finished. Then, what water falls through the interstices will fall upon a painted surface, and be conveyed out, instead of following the grain of the wood down under the paint.

PEAT OR SWAMP MUCK.—Will it pay to haul peat two miles on a good road where a yoke of oxen can haul half a cord, spaded up directly from the bed? The muck to be composted with stable manure, or otherwise, used upon an alluvial soil of naturally very good quality. The soil has been much reduced in productiveness by former occupants. The peat was pronounced, in 1837, by Dr. Charles T. Jackson, "excellent peat, of a remarkable character, it being in part bituminized by the process of decomposition." It lies upon a hard, gravelly bottom, gradually deepening towards the centre. O. W. TRUE.

Elm Tree Farm, near Phillips, Me., Jan. 31, 1862.

REMARKS.—We have no doubt it will "pay," if the work is economically done, by hauling when other important work is not pressing.

USE OF HEN MANURE ON CORN.

I have been in the habit of using hen manure, applied in the hill, on corn, for a number of years, with excellent success. I take my hen manure to a convenient place—say a barn floor, and pulverize it thoroughly—then mix two-sixths ashes and one-sixth plaster, with an equal proportion of the manure in bulk, of both ashes and plaster. After preparing my ground by spreading, say twenty-five cart-loads, of stable or other good manure on the turf, and plowing it under, I mark out my ground without either harrowing or bushing, and then drop one gill of the above mixture in each hill, either planting my corn beside, or kicking on a little dirt with my foot, over the mixture, and planting directly on it. I row both ways, three and one-half feet apart. In this way I have succeeded in getting fine crops. I generally use about fifteen bushels of the hen manure mixture to the acre; but if I used no other manure to carry out the crop, I would certainly use at least forty bushels of the same. I think most farmers miss it in running over too much ground to get a bushel of corn, when by manuring heavily, they get the same grain on less ground, and make a saving in labor, and leave the soil in a better condition for stocking down.—E. ALLEN, *Pomfret, Conn., in Country Gentleman.*

PREVENTIVE OF THE CURCULIO.—Mr. A. C. Hubbard, of Detroit, publishes in the Michigan *Farmer* a statement that "common" elder bushes tied to the branches of plum trees had prevented the operation of the curculio for three years, in a garden he recently visited. His friend had been upon the place five years. The first two years he tried to save his fruits by shaking the insects upon cloths, with but poor success. "An old Frenchman" told him to put elder bushes in his trees. He has done so for three years with the same success—a full crop of perfect fruit. The bushes were put into the trees every few days from the time the fruit was set until full grown.

For the New England Farmer.

THE CULTIVATION OF WHEAT.

J. PALMER, ESQ.,—*Sir:*—Your letter of inquiries respecting winter wheat has been received, in which you say "you have cultivated winter wheat upon a small scale the two past seasons, and that it has not been injured by the midge; but that you find it difficult to get the corn off the land in season to sow wheat, and seed down to grass; that you cut up your corn as soon as it will possibly answer, and remove it from the grounds, and shock it, which is a good deal of labor; and further say, you should prefer to sow spring wheat if you could obtain some that the insect would not injure, and ask if I know any such?" I know of no variety of wheat, either winter or spring, that is midge proof, though it appears that some varieties are less injured by the insect than others.

I have successfully grown winter wheat for the past nine years, on my farm. Spring sown wheat has been a very uncertain crop. If sown early, it has usually suffered badly by the depredations of the midge. If sown late—say the last of May—it may escape the insect, but has been pretty sure to rust, mildew or blight. My farm lying in a valley, the wheat crop is more liable to injury from rust, midge, &c., than that grown on our hill-farms. But as low-lying as is my farm, I have suffered, during the period I have grown fall-sown wheat, but very trifling loss from midge, rust, or winter-kill. Winter wheat on my farm has been a surer crop than that of corn, oats or potatoes. I have usually sown between the 25th of August and 10th of September. By early sowing, the plants are less liable to winter-kill, and obtain an earlier start in the spring, thereby getting ahead of the midge, rust, &c.

The Japan wheat you ask about is the earliest winter wheat I know of. I cut a part of mine the 12th of last July; it does not stand our winters so well as some other varieties, but it never has been injured by the midge, nor rusted in the least. From its early ripening, it was badly injured the past season by whole troops of yellow birds, who *shelled* it badly, while the grain was in the milky state. It is a red wheat, beardless, but makes a very good quality of flour. I have sown the past fall quite a patch of it, and shall know, another harvest, whether it will be a profitable variety to cultivate.

You ask what variety I consider the safest and best. I have grown Gen. Harmon's "improved white flint," the Tuscan from Michigan, Early Noe from France," and on a smaller scale, a dozen other varieties, all of which have done well. The past season I grew fourteen different varieties; two of the latest kinds were somewhat injured by midge and rust. The white flint gives forty-seven pounds of superior flour per bushel; some of the others not quite as much. The Early Noe makes a very white flour, but bread made of it *dries up* sooner than that from some other variety. I know nothing respecting the Java wheat you inquire about.

I have never grown winter wheat after corn. Cannot get the ground cleared of it early enough. Very much depends upon early sowing; therefore, let oats or barley follow corn, then manure the stubble, plow and sow wheat and grass seed. Or

plow a clover-ley in August, top-dress with guano or fine manure, or completely invert greensward. Last of August, roll down the furrows, manure, harrow well, then sow wheat and grass seeds, and clover seed in the spring. If the wheat should happen to fail, you will be likely to get a good field of grass. But more than three-fourths of the wheat I have grown, has been on inverted sod, and usually has done better than that on old ground. I am satisfied that most of our farmers can grow winter wheat with more certainty than they can spring wheat, and that it would be better for them to raise wheat for family use, than to purchase western flour.

The varieties of wheat I have grown, as field crops, have all, except the Japan, been "white, bald wheats;" these make a whiter quality of flour than the red chaffed and bearded wheats, but I am not sure as these "white, bald sorts" are as hardy and productive as the bearded varieties.

In August, 1860, I forwarded to Col. A. G. Boyd, Hancock, Md., samples of five varieties of winter wheat, which he sowed in September, 1860. In August last I received a letter from Col. B., in which he says: "All the varieties of wheat you sent me last fall, I observe are smooth (bald.) There is existing among our farmers a prejudice against smooth wheat, and I am beginning to be of the opinion that it is not without substantial reasons. Certain it is, that our smooth varieties are more subject to the ravages of the fly and other insects, and to the elemental diseases incident to the wheat crop, and yield little or nothing, whilst the bearded varieties, with few exceptions, escape the insect and these diseases, and yield remunerative crops."

I have grown from 10 to 16 bushels of bald wheat from the bushel of seed sown—and some of our farmers have done better, getting 20 or more to the bushel of seed. But among the dozen varieties of wheats I experimented with (in drills) the past season, four of them were bearded wheats. While growing, and when harvested, I was satisfied that the bearded varieties were the most productive, the produce of which has been sown, as well as several other varieties, (14 in all,) and another season I hope to be able to test the correctness of Col. Boyd's views. If the bearded varieties prove decidedly the hardiest and productive, I shall cultivate them in preference to the smooth, or awnless sorts.

I wish I had an opportunity of forwarding you a few heads, each, of the different varieties I grew the past season. It would satisfy you that beautiful samples of winter wheat *have* been grown in the "Old Granite State"—and I am full in the faith it can be done again. Taking a series of ten years, I believe we can grow winter wheat, with as much certainty as it can be grown in any other of the States in the Union, or out of it.

Yours, most respectfully,

LEVI BARTLETT.

Warner, N. H., Dec. 16, 1861.

SOAKING OF SEEDS.—One of the best methods of preparation of seeds for an early start is to soak them in diluted liquid manure. Hen dung is much recommended for this purpose. Sometimes soaked seeds do not come forward, or rot in the ground; but frequently it is the case that the seeds are not attended to, but are allowed to heat, or sometimes to get dry, before they are sown. Another point is to have, for small seeds, the soil in a warm friable condition; if the seeds are soaked and the surface of the soil is warm, and the soil itself is pressed down close to the seed, by rolling, or the hee, when the sowing is done, it will make a material difference in the time which they will take to sprout; and besides this, the manure with which their outer coat is saturated, protects them from the attacks of worms and insects.—*Michigan Farmer.*

FEED YOUR CROPS.

Dr. BECCANA, more than a century ago, remarked that "we are composed of the same substances which serve as our nourishment." The same observation applies with equal correctness to plants. Dr. Lee, when Principal of the Agricultural School near Rochester, New York, several years ago, took considerable pains to demonstrate this fact. "He first," says a writer, "analyzes the plant or produce, and finds out what it is made of. He then knows what materials must be supplied to feed it in order to obtain a good crop." He ascertained, by a series of very ingenious and carefully conducted experiments, that one hundred pounds of wheat ashes contained forty-seven pounds of phosphoric acid. In one hundred pounds of the ashes of oak wood, he found there were two pounds of phosphoric acid. In commenting upon this fact, the writer above mentioned says:

"Now how many pounds of dry oak ashes must be applied to an acre to give a crop of wheat, both straw and grain, equal to thirty bushels, and supply it with all the phosphoric matter needed? In order to solve this problem, we must remark that thirty bushels of wheat at 60 pounds per bushel, will weigh 1,800 pounds. One hundred pounds of wheat, when burned, will yield 2¼ pounds of ashes. Of course, 1,800 pounds of wheat, will contain 40½ pounds of ashes, and thus 40½ pounds will contain a trifle over 19 pounds of phosphoric acid. To one pound of wheat there is usually 2½ pounds of straw; we shall, therefore, in order to produce 30 bushels of wheat, have about 4,500 pounds of straw, containing 315 pounds of incombustible matter, which, if burned, will be left in the form of ashes. It has been found by experiment that 100 pounds of ashes from wheat straw, contain 3 and 1-10th pounds of phosphoric acid. This 4,500 pounds of straw will contain, therefore, 9.76 pounds of phosphoric acid, which, added to the 19 pounds in the wheat, will make 28.76 pounds. Now, if you want to supply this phosphoric acid by the application of oak ashes, containing 2 pounds in every 100 pounds, you will need 1,400 pounds. A bushel of such ashes will weigh nearly 70 pounds, so that you will want twenty bushels of ashes."

We would here remark, that, in a large majority of cases, probably, the quantity of ashes required to feed the crop of wheat with the requisite amount of phosphoric acid, would exceed this, as it is by no means likely that all the acid would be taken up and assimilated by the plants for whose especial benefit it was designed, when applied. There are a number of ways in which a portion of it might escape, and do very little good to soil a crop; yet the suggestion is of value as tending to direct us in the pursuit of right methods and fortunate results in the management of a valuable and important crop. The analysis of vegetables will undoubtedly prove of value to the husbandman, and some measure ought to be adopted to render the analyses of plants more common and familiar to us.

It is well for the farmer to be familiar with the experiments and theories of the chemist, as they will sometimes lead to the most valuable results, and always lead his mind to subjects of the most pleasing contemplation. But there are continual operations in nature entirely beyond the research of either chemist or farmer. The latter may employ the amount of ashes found necessary by the experiment of the chemist to produce a given quantity of wheat, and yet utterly fail of producing a crop. The farmer knows, however, that when he uses ashes or lime upon his wheat crop, that nine times in ten the crop is better for it. It is this experience, springing up from his daily and yearly practice, that is of the greatest importance to the farmer. The difficulty is, that he does not digest and record it, and pass it along for the benefit of those who succeed him in the same employments.

HORSES.

Col. Needham, the Secretary of the Vermont State Agricultural Society, in his annual report says:

"The number of horses in Vermont before the breaking out of the rebellion, was about fifty-five thousand, since which time it is calculated that nearly ten thousand have been carried from the State for army purposes. This immense levy for horses has been made throughout the entire country. When it is considered that comparatively few of these horses will find their way back; that the number that will die of disease, or become unfit for service, is twenty times as great as it would be, were they used in other kinds of business; that to meet this great want of the government, a large proportion of the business horses in our large cities, which have been thrown out of service by general prostration, have been bought up; it readily appears that, even during the war, horses must advance in price; and at its close, when business shall revive, and trade resume its former channels, the demand for good horses must exceed the supply. Reasoning from these premises, no more profitable labor can be engaged in, than the production of good business horses."

For the New England Farmer.

POTATOES ON MUCK LANDS.

MR. EDITOR:—I have lately turned over the last seven or eight volumes of the *Farmer* to see if I could find any records of experiments with either of the concentrated, manures upon meadow lands. The meadow which I have under cultivation produces abundant crops of potatoes, provided each hill receives a small amount of some coarse manure. I might state here, that while every crop I had tried has succeeded—the potato appears, to be the most profitable, and, further, that a *coarse* manure produces larger and *smoother* potatoes than compost. For good and sufficient reasons, however, I wish to use the major part of my manure upon uplands, and would be glad to substitute therefor guano, superphosphate, or something of the sort, which, at the same time, might be so much more conveniently applied to lands where no animal can travel without it be shod with *rackets*. I have thought to avail myself of the experience of some of your correspondents, but find nothing upon the subject. Have you not, Mr. Editor, some reader who has experience in the premises and who is in want of a subject whereon to write for the *Farmer*? If so I would like to hear from him.

While looking through the volumes of the *Farmer*, I was reminded of the fact that a great many of your subscribers fail to have their *Monthly Farmers* bound. They are not aware that the twelve numbers, although they may be a little soiled, are made into a very handsome volume by the binder, for the small sum of twenty-five cents. If information is desired upon any particular subject, the reader, by the aid of the index, which accompanies each volume, can compare the views of a score of writers. Let me advise every subscriber to the Monthly to have his numbers bound.

Londonderry, N. H., Feb., 1862. M. W. A.

REMARKS.—We have been examining crops of potatoes growing on muck lands, more or less, for the last ten years. They have averaged better crops on such soils than they have on the high lands. Various manures have been used. Fine crops have been produced by the aid of a handful of Peruvian guano, without other dressing—but at $65 per ton, it is doubtful whether anything can be gained by its use. So good crops have been made by the use of ashes in the hill, or superphosphate of lime. A night-soil, or poultry, compost, on good muck lands, we think would bring profitable crops.

HINGHAM AGRICULTURAL AND HORTICULTURAL SOCIETY.—This young giant has issued a list of prizes for 1862, making in the aggregate the sum of $750. It is made up of only a single town, but actually outstrips some county societies in the extent and quality of its exhibitions. The officers of the Society are:

President—ALBERT FEARING; Vice Presidents—Solomon Lincoln, Charles W. Cushing, Luther Stephenson; Recording Secretary—De Witt C. Bates; Corresponding Secretary—Henry Hersey; Treasurer—J. H. French; Librarian—L. Fearing

For the New England Farmer.

BARNS AND BARN CELLARS.

I have been perusing your paper of March 1st, and noticed the report of the Legislative Agricultural Society at their seventh meeting. Subject —Farm Buildings. I would like to make some inquiries in regard to the ventilation of barns with cellars under them.

First, If a man should build a room, lay a tight floor, double board the sides, build a good fireplace without any chimney in one side, and then lay a loose floor overhead, and then cover with hay, and build a fire in the fireplace, would he be surprised if his hay should be smoky? taste smoky? smell smoky? or if his clothes should come in contact with the hay, or remain in the room a short time, would they not smell smoky? Is this to be wondered at? I would ask how many barns are built upon the principle of the room above described? Or how many stables are there in the country which are ventilated in the same way? (through the hay mow.) It is not to be wondered at that people complain about ventilation in such barns as have cellars under them; also, about bad hay, or yellow hay, that lays over the stable, it would not be surprising if all the hay and straw that was in the barn should smell or taste a little strong.

Second, A barn that is 40 by 60 feet may be properly ventilated by two pipes, viz.: Place one of them in the vicinity of the stable, which should have a box pipe running the whole length of the stable, with small openings as necessity would require, at the different tie-ups. Then there should be another in the opposite end or part of the barn, and if there should be another stable, there should be another tube running the length of the stable, to unite with the large ventilating pipe. These ventilating tubes, for a barn of the size given, should be two feet square, with a damper (at the lower end) to turn as occasion would require. In no case should they diminish in size towards the top of the barn; to contract the tube at the top would be to stop the draft, but to enlarge the top gradually would increase the draft, and they should be placed as near the centre portion of the cellars as convenient.

Lastly, If any man will follow this last rule, he would not have smoky, yellow, or bad flavored hay, providing it was got into the barn in good condition. NATHAN WAY.

West Burke, Vt., 1862.

For the New England Farmer.

EXAMINING EGGS FOR SETTING.

As the time of setting hens is near at hand, a few hints may, perhaps, be of some benefit to your readers. Select a warm, dry, secluded place; set four hens, or more, if possible, at the same time, so as to allow one hen to rear the four broods, as it is no more trouble to take charge of forty chicks with one hen, than one-third that number. After setting four days take the eggs from under the hens in the evening, hold them before a strong light, between your hands; if the eggs are good, you will perceive a small, floating ball, which is the eye of the chick, and the eggs will appear thick with bloody veins passing from side to side. Replace such eggs carefully; those that have *not changed* can be used in the family, as they will not be injured. If you first placed thirteen eggs under each hen or fifty-two under the four hens, you may find upon examination, perhaps, twelve without chickens, which would become what are commonly called "rotten eggs." Place the remaining forty-eight eggs under the three hens, and set the other hen with fresh eggs, and if the hens set steadily, you may expect forty-eight chicks from the three hens.

In selecting eggs for setting, choose those of moderate size, and well proportioned; thirteen eggs is a sufficient number for one hen; you will get more chicks from that number than from more, as a larger number annoys the hen, who will be continually endeavoring to cover them, thereby shaking and often killing the chickens in the eggs.

Salem, March, 1862. JOHN S. IVES.

For the New England Farmer.

BEET SUGAR.

MR. EDITOR:—In your remarks on my beet article in last *Farmer*, I am glad you led me to correct an error, either of my pen or your printer. Instead of 10 or 12 bushels, it ought to read 10 or 12 cwt. It appears to me that the article you quote from, in the *American Encyclopedia*, has been, by the compilers, copied from Loudon, and that he wrote when the production of sugar and brandy from beet was in its infancy, and hence the discrepancies with regard to quantity and results, &c. It must also be borne in mind that the boiling of the pomace, or pulp, before pressing, adds a third more of syrup, and that is but of recent introduction in the manufacture of beet sugar; and a great many still adhere to the old system of pressing the pulp cold, as it comes from the mill. I have seldom found two people to agree about the quantity of the raw material required to produce a given quantity of sugar, even in the sugar-making districts of France; and in my own experience I have found the quantity vary from 8 to 16 cwt. of clear roots to the cwt. of sugar. This variation is scarcely to be wondered at in a new branch of business however, when malted barley, under the hands of old and experienced brewers, often produces like variations of quantity and quality of ale, under certain circumstances.

I have more than once seen whole pressings of hundreds of gallons rendered almost useless by the too liberal application of lime and sulphuric acid, when a third part of each was only necessary, and a few drops of the oil of violets administered at the critical moment, would have saved the whole mess. The quantity of molasses has also to be taken into account. The more molasses the less sugar, and the more sugar the less molasses, which has to be regulated by the application of chemical agents, upon which much depends in the manufacture of a good article. The whole economy of the thing consists in adapting means to ends, and having the different departments work in perfect harmony. For example, the sugar manufactory and the distillery ought to be united, as molasses and other refuse of the sugar is good enough for distillery into brandy. The pulp, after being pressed, is sold to the paper-makers, and brings a good price, as it is found to make the best and most durable paper, and is much in demand for that purpose, in many parts of Europe. The *Lon-*

don Times, the largest journal in the world, is printed on beet paper, of which they consume seven tons per day, or 2555 tons per annum, at a saving to the proprietors of $100,000 a year.

So the beet, duly considered, is a most useful and wonderful vegetable. Its adaptation to transformation into so many articles of use to man, seems without limit, and is, therefore, astonishing to contemplate. Beef, pork, mutton, milk, butter and cheese, sugar, brandy and paper, are but a few of the articles into which this root can be transformed, and time is only required to develop its future usefulness in this wide country, to the wants of man.

I have written to France for fresh information regarding the quantity of roots required under ordinary circumstances to produce a given quantity of sugar, &c., and when I receive an answer I will lay it before you. And in the meantime, I remain respectfully, THOS. CRUICKSHANK.

Beverly Farms, March 4, 1862.

For the New England Farmer.

FARM BUILDINGS.

MR. EDITOR:—In a report of the Legislative Agricultural Discussions upon farm buildings, several very important points were brought out, and I refer to them, hoping to elicit more valuable suggestions upon the same subject.

Shall we not have the diagram of the position of farm buildings, with explanations, hints about size, construction, &c., presented by the Editor of the *Farmer*, at said meeting, at an early day, in the *Farmer*?

I confess to a liking of farm buildings being connected and being under as few roofs, as a general rule, as circumstances will allow, thinking the conveniences and economy in labor in and about them, more than equal to the disadvantages arising from their connection, beside the saving in walls and roofs.

In the "shelter" required for buildings, do they not need the rays of the sun, the "balmy breezes," the south-east storms, modified, in the southern aspect, as well as in any other direction, though to, perhaps, a less amount? And here, in reading your remarks, the fact occurs to mind that the pine is injured by winds more than the other evergreens mentioned; (here in Maine, at least.)

It is a subject of thought, how to have a suitable shelter around the buildings, and not obstruct the view of the fields and pastures, where the building site is nearly on a level with them, which by some is considered one of the important requisites to have a full view of the fields from the buildings.

Would you have shade trees, which grow to a large size, set out so near to buildings, that in case they should be blown down, they could fall upon the buildings? Though no serious accident of this kind is just now called to mind, yet when seeing maples, elms, pines, and the like, growing within a few feet of the house, a feeling of fear would steal over me that in some of our New England gales, some of the large branches, or the whole top, might be wrenched off and hurled upon the roof with a crushing weight.

Why does Mr. Fearing think it "not good economy to paint" his sheep-sheds, as well as other out-buildings?

That "new kind of paint" of Mr. Taylor's.—Such a description as given in the report viz., "the base was whiting, with perhaps a little lime and oil, with colors to suit," is, to say the least, quite indefinite. If you know the import of *perhaps a little lime and oil*, and what really made up the bulk of the paint, with the base, I shall be glad to receive more light. If such a paint, or wash, as there referred to, can be procured, it is truly a desideratum—an improvement worthy of the nineteenth century—one which many a toiling farmer will be thrice glad to obtain, and to test, upon the weather-beaten walls of his buildings.

Near Phillips, Me., 1862. O. W. TRUE.

REMARKS.—The diagram we presented was improvised for the occasion, and was intended only to show the position of the buildings in their relation to each other.

Shade trees should never come so near the buildings as to exclude all the rays of the sun, either in summer or winter. On the north, they may be nearer than on the other side. Elms and maples should be fifty feet from the dwelling, and all trees should be so arranged as not to obstruct any prospect that is valued.

For the New England Farmer.

SMITH'S IMPROVED FENCE.

MR. EDITOR:—As you have Smith's Improved Fences upon your farm, I wish to inquire whether, in your opinion, his fence No. 2 can be advantageously used, as a road fence, to prevent snow-drifts?

The answer to this question will concern every person who is obliged to pass over our roads in winter. If his fence has this advantage, and no other, I will guarantee him patronage enough in this State to satisfy any reasonable man.

Over a great part of the State, and during the greater part of the winter, our common roads have been literally buried under immense snow-drifts, and the only way to get through them has been to dig through; and after every driving storm, we have been compelled to do the same over and over again.

Thousands of dollars will not pay the cost of keeping our roads open the past winter, and business over them has been about as brisk, as it usually is on the coast of Greenland. Upright road fences are the cause. VERMONTER.

Burlington, Vt., March 6, 1862.

REMARKS.—See cut and description of Smith's Fence in another column.

GOATS.—An article upon Goats, recently published in the *Farmer*, has been extensively published and commented upon. We did not think it necessary to say at the time, that if a person has a tree or a plant which he values, he must not allow goats to run at large. They are exceedingly destructive to nearly all kinds of herbage, and will surmount almost any obstacle to get at it.

For the New England Farmer.

SEED WHEAT---FARMERS' CLUB---A SNOW BLOCKADE.

MR. EDITOR:—In a communication in the *Farmer* some months ago, either the printer or scribe made me say just what I did not intend, namely, that the farmers hereabouts sowed only the largest *kinds* of wheat, when it should have read the largest *kernels*. For a few years past the "Canada Club" and "Scotch Fife" have been almost the only kinds sown, although formerly the "China Tea" wheat and other large varieties were raised considerably. By the use of an improved fan-mill, which separates the largest, plumpest and earliest ripened kernels from the smaller, as well as from all foul seed and oats, we think we are improving our grain crops, wheat especially, in a perceptible degree, getting a larger yield, earlier matured and less exposed to the midge, and better quality. But we hope your readers will not understand that we sow only the largest kinds of wheat—except as we increase the size of the variety by sowing only the largest kernels.

FARMERS' CLUB.

That you may be better acquainted with us, farmers, I will give you a little specimen of our talk at the second meeting of the club, which was organized two weeks ago for the following objects, as named in the 2d Article of the Constitution:

1. The acquisition and dissemination of agricultural knowledge.
2. The promotion of acquaintance among neighbors.
3. Improvement of its members in conversation, composition, public reading and speaking, &c.
4. Improvement of farms, farm implements, stock, buildings, and every department of agriculture.

Our first subject for conversation was the comparative merits of fall and spring plowing. Mr. G. recommends fall plowing as to economy, destroying grubs, &c., enriching the soil and saving of labor preparatory to the hurry in getting in spring crops—would plow greensward soon after haying when the ground was warm—believes fall plowing gives heavier crops—in favor of spreading manure on the surface and harrowing rather than plowing under very deep—thinks the little loss of ammonia by plowing corn or grain land in the fall more than compensated by the manurial effect of the stubble.

Mr. —— prefers to break greensward for planting after the grass has well started in May—does not think fall plowing destroys grubs or foul weeds any better than spring plowing—has his doubts about getting as good crops from fall plowing of stubble land—for wheat is in favor of both fall and spring plowing—thinks if *all* plowing could be done as conveniently in spring it would be better, except plowing in greensward in August when weather is warm, so that the rowen heats and rots considerably before cold weather.

Mr. G. is quite confident that fall plowing destroys larvæ—don't think fall plowing of corn land manured in the hill injurious—not much lost if plowed late.

Mr. —— don't profess to be much of a farmer, has some ideas—thinks we don't generally plow enough to sufficiently pulverize the land—much in favor of both fall and spring plowing—says farmers in H—k get from 75 to 100 bushels of oats per acre, and plow old land both fall and spring—likes breaking greensward in August—and is satisfied from personal experience that the more we plow and work over land, the better crops of every kind.

Mr. —— thinks we sometimes get land pulverized too much—in regard to seeding down, thinks the greater growth of straw is from spring plowing, but more weight of grain from fall plowing—never saw oats eaten up badly by worms or insects on fall plowed land—is in favor of breaking greensward early in the fall—has lost new seeding by sowing on land pulverized in the spring; Mr. —— endorses the same opinion.

Mr. —— thinks our crops depend more upon manure than the time of plowing—especially land for seeding down should have been well manured and thoroughly pulverized—is in favor of getting muck, &c., and preparing manure instead of plowing in the fall—thinks, if can plow but once, better do it in the spring—in favor of plowing greensward for corn the last thing before the ground freezes up—not generally in favor of plowing corn stubble land in the fall for wheat the following year.

Mr. —— thinks seeding down depends more upon the thickness of the grain sown with the seed than on the time of plowing—in favor of fall plowing to get of "sward-worms."

Mr. —— thinks that broadcast sown grain is less liable to rust on fall plowed land because the sward is better decomposed—thinks in one instance he raised oats on a field part plowed in fall and part in spring, and the fall plowed yielded one-third more grain and equal amount of straw, seeding caught better and produced better hay crops than the other—thinks fall plowing, especially for moist land, pulverizes it better, on account of frost, &c.

Mr. —— is in favor of fall plowing for wheat after corn—also for seeding down—would like further discussion of this subject.

Thus you have, Mr. Editor, a sample of our first meeting after organizing; do you think it advisable to try to keep it up? We have decided to have at least one more meeting, and the subject is the "corn crop." I don't know that any one of us ever had any experience or practice in any other club, so that of course we are all "green," though as a community we don't like to be be rated more than others, or considered "below par" in general and our pa in particular! It is our intention to have our wives and older children associated, actively with us, and our hired help in the club, and besides conversation, occasionally have original essays and speeches.

THE BLOCKADE.

I don't know how you of the cities and port towns regard it; we in the suburbs of central Vermont, are united to a man, to say nothing of the women, in our determination to exert ourselves to raise it by persuasion or force, hook, crook, or shovel, if it is not removed within thirty days! We care not whether by England or France or Greenland the blockade is raised and lemonade and our neighbors made accessible, and our commerce let loose, so be it is soon done. Why, sir, just think of it—ninety-one inches of snow before the fourth week in February! And then, for the

last six weeks, Major General Boreas and all his host have been here on furlough amusing themselves for the mere sport of it in piling it up in the most inconvenient ways imaginable. Within six feet of the room in which I write they have left a pile ten feet deep before the door, and there are many piles in the highways which would allow of having a road cut through them sufficient for a double team to pass out of sight a considerable distance. Last night was the most severe within the memory of the oldest inhabitant, the aforesaid company doing their *awfulest*, while the mercury varied from 38° above to 6° below zero. A townsman coming to the centre between seven or eight o'clock in the evenins got his horse set in a drift within ten rods of the main street, and while he was going on for help through the flying snow, lost the track, became exhausted and would have perished, but for his protracted calls for assistance, although on the corner of three streets and houses all around. My neighbor the doctor says he has a drift in his garden thirteen feet deep! Such being the facts, shall we be branded "Secesh" if we berate the blockade? B. N.

Steady-habits, Feb. 24, 1862.

CLIMBING PLANTS.

There is nothing that adds so much to the external appearance of a city residence as a climbing plant or two. We know of no ornament so cheap and tasteful, and none as equally appropriate to the mansion and the cottage. There are climbing plants hardy enough to live and thrive without much care, and they require so little soil that every one who has possession of a square yard of ground can sit under the shadow of his own vine. The cheerless expression of walls that present only a succession of clapboards or bricks may be relieved by these best of nature's ornaments. The drapery of leaf and blossom about the windows, the vine climbing up to the very eaves and thrusting its tendrils into every crevice, the rustic trellis at the doorway almost hid by the rich foliage, are evidances of taste that should be multiplied. Mr. Downing beautifully says, "What summer foliage is to a naked forest, what rich tufts of fern are to a rock in a woodland dell, what hyacinthine locks are to a goddess of beauty, or wings to an angel, the drapery of climbing plants is to cottages in the country;" and, he might have added, to residences everywhere.

The following climbing plants will be found to answer the requisitions in situations where hardiness and vigorous and rapid growth are indispensable. We rank the roses first, for no one ever wearies of them. The Queen of the Prairies and the Baltimore Belle are two fine varieties of the Michigan rose. They are remarkable for the profusion of their flowers and the rapidity of their growth, shoots of twenty feet in length in a single year being not uncommon. The blossoms of the Queen of the Prairies are a deep pink with a white stripe in the centre of each petal, and so very double that they look like large pouting buds, rather than full-grown roses; those of the Baltimore Belle are almost white, and in large clusters. Mr. Downing recommends the common Boursalt rose, which he says "has long purplish shoots, foliage always fresh and abundant, and bright purplish blossoms in June, as thick as stars in a midnight sky." The richest and prettiest Boursalt is one called Amadas or Elegans.

The *Chinese Wistaria* is another plant admirably adapted for the decorations of dwellings. It is perfectly hardy, a rank grower, and may be trained over the whole side of a dwelling, or twine about a single pillar. It requires some age and a favorable location to flower, but the flowers are worth waiting for. They hang in clusters, like those on a locust tree, are from six inches to a foot in length, and of a most delicate tint, between light purple and white. When in full bloom, it is one of the most beautiful flowering plants.

For twining about windows, nothing is prettier than the Chinese twining honeysuckle, (*Lonicera japonica, flexuoso.*) It blooms constantly nearly all summer, and its fragrance is peculiarly pleasant. It is not so hardy as the roses mentioned, but may be cultivated with a little care. The red and yellow honeysuckles, planted together, give a very fine effect, especially when trained on a lattice. Mr. Downing speaks of the sweet-scented clematis (*C. flammula,*) "as the very type of delicacy and grace, whose flowers are broidered like pale stars over the whole vine in midsummer, and whose perfume is the most spiritual, impalpable, and yet far-spreading of all vegetable odors."

All these climbing plants may be trained on the sides of dwellings by an occasional fastening to the wall. The honeysuckles, being more fragile, need the support of strong twine. All the preparation necessary is to dig a trench a little distance from the wall, fill it with rich soil, (for the richer it is, the more luxuriant will be the growth,) and plant the root, the cutting, or the seed, as the case may be, and the thing is done. These may be obtained at a trifling expense from any of the nurseries or green-houses, and once obtained, your stock will never need renewing. They will add to the beauty of the most delightful residence, and impart it to those lacking in all ornament. The old house which you begin to talk about tearing down, will look quite well for a year or two longer, if you will rejuvenate it by this drapery of living green. The blank, broad side of a building which stares into the street, with its great expressionless face, will wear a very different countenance, if you will build a simple trellis over the front door, and cover it with some graceful creeper.

There are situations where the European Ivy, the American Ivy, and the trumpet creepers, (*Bignonias,*) have a fine effect. This class of plants help themselves in their upward course, fixing their rootlets into the stone or brick wall. The European Ivy is tender, but the American or Virginia creeper, and the trumpet creeper, will thrive anywhere. They show to good advantage on the rear of brick or stone cottages, on the side of some old out-building which cannot be improved in any other way, on a walled terrace, which often divides the doorway from the garden, and on rude walls and fences generally.

We trust we have not wearied our readers with this plea for ornament. Every consideration which should lead to giving an air of cheerfulness and repose to the apartments of a residence, every motive which impels us to beautify the walls that shut the cold, common air of the world out, and the genial, peculiar air of social enjoyment in, also urges us to make our homes externally tasteful, beautiful and characteristic.—*Buffalo Courier.*

EXTRACTS AND REPLIES.

PROFIT AND LOSS IN POULTRY RAISING.

As you had the kindness to publish my account for the year 1860, as to profit and loss of poultry raising, I now send you the items per month for the year 1861, and should you think it worthy of a place in the *Farmer*, for the benefit of those interested, please make it public.

Brahma Pootra fowls and Muscovy ducks are the breed.

STOCK, FIRST OF EACH MONTH.

	Fowls.	Dozen Eggs.	Ducks.	Dozen Eggs.	Young Chicks.	Young Ducks.
January	29	20.1	12	6.3		
February	27	22.8	9	9.3	9	
March	27	36.8	9	12.6	23	
April	27	28.8	9	6.0	19	
May	24	21.4	9	9.8	48	7
June	24	21.6	9	6.8	68	7
July	24	18.11	9	6.0	82	16
August	14	13.10	9	1.0	75	34
September	9	15.5	5		59	39
October	9	15.0	3		36	37
November	8	9.9	3	2.1	36	33
December	6	25.2	3	0.9	31	19
		249.0		60.2		
		153 sold.		5 sold.		
		96		55.2		
		20 set.		5.10 set.		
		76		49.4		
		49.4				

125.4 eggs used in the family.

DR.—36 bushels corn	$24,10	
36 " oats	16,25	
200 lbs. siftings	2,00	
Meal and shorts	2,60	
Scraps	1,50—	$46,45
4 hens died	1,00	
21 chicks died	1,05	
19 ducks "	96—	4,81
Total cost		$51,26
CR.—158 dozen eggs sold	$35,37	
77 hens and chickens	24,32	
25 ducks	17,51—	$77,20
Food and loss		51,26
		$25,94
125¼ doz. eggs used in family, at 20c	25,06	
8 fowls used in family	3,15	
17 ducks " "	10,33—	38,54
		$64,48
10 bbls. manure	10,00	
Premium at the Fair	1,00	
Profit		$75,48

Stock on hand, Jan. 1, 1862—32 fowls, 11 ducks; and now, Jan. 27, I have 18 chickens hatched on the 11th and 18th inst., which will commence laying in July, and then I dispose of the old fowls.

Salem, Jan. 27, 1862. JAS. BUFFINGTON.

THE WEATHER IN VERMONT.

We have just experienced the greatest snow and blow that has occurred in this vicinity, (Lyndon, Vt.,) for many years, so the "old folks" say. During one week, about two and a half feet of snow fell—terminating February 25, in a perect bluster! Highways and railroads were completely blockaded—so much so that the passenger and freight trains upon the Passumpsic road were obliged to "lay out" nearly twenty-four hours within about four miles of Barton; and drifts were piled mountain high in every direction. We mark it the great snow and blow of 1862. How far did it extend? I think the snow upon the ground the present time will average four fee deep—some say five. The winter of 1861–62 may very properly be recorded as a season of snows, blows and variable weather. I. W. S.

FREAK OF A DWARF PEAR TREE.

One year ago last summer, a Duchess d'Angouleme gave out a bunch of blossoms at the usual season, and three pears set; I destroyed all but one, the tree being very small, supposing I had committed no outrage, nor wounded the feelings. But quite the last of June, after the limbs had grown three or four inches, on the end of a spur or limb, 2½ inches in length, all of which had grown that season, appeared a blossom; the fruit set and matured in the fall, about four weeks after the first, though not as large, but fair. The first measured 12 inches one way and 11 the other. Thus you have the freak of my pear tree.

S. W. EDSON.

Feeding Hills, March, 1862.

BUFFUM AND BLOODGOOD PEARS.

Can you inform me through the *Farmer* where the varieties of pears known as the Buffum and Bloodgood can be procured. P. BRADFORD.

REMARKS.—Of Hon. Marshall P. Wilder, Boston.

For the New England Farmer.

START YOUR TOMATOES.

MR. EDITOR:—The tomato is now so universally relished that it is almost superfluous to urge its claims, but the past year gave such an inferior crop of all tree fruits and wild berries, that the importance of some substitute becomes more apparent, and taking into consideration the ease and certainty of its production, its abundant yield, and the fact that a relish for it can be acquired by almost every one, I know of nothing which can better supply a deficiency in the ordinary fruit crop than the tomato.

The only difficulty is in ripening them sufficiently early, but this may be obviated by any one with common facilities. The first aim should be to get early varieties, and the yellow plum is among the earliest, and to my taste, is the best flavored tomato I have ever tested, but the labor of peeling, when prepared in that manner, is an objection. The large, smooth red is nearly as early, and is a very good variety. The perfected, about which so much has been said, did not ripen last year in my grounds until two months after the yellow, and is no better in quality than other varieties.

The next important item is to get them started properly before the season for planting out, and in this there is often a great failure. I frequently see them planted very thickly, in very compact soil, and kept saturated with water, which treatment, of course, causes them to grow up very tall and "spindling," and when they are transplanted, what few roots they have are so matted together and so firmly fastened in the soil, that most of them are torn off, and the plants, made succulent and tender by shade and excess of moisture, if they ever start at all, are so checked as to be very little ahead of plants started in the open ground.

The best method I have ever tried, is to plant

the seeds in small flower pots, five or six inches in diameter at top. These have an inch or two of coarsely broken charcoal placed in the bottom, and they are then filled with some porous soil; that taken from an old hot-bed is good, or well decomposed muck and sand, with a little very fine manure, or better still, a mixture of one-half each of leaf mould and good sand, and a few seeds planted in each pot, and the pots placed in the windows close to the glass. When the plants are up strong, I thin them out with a pair of scissors as often as there is the least appearance of crowding, taking care to leave the best plants, until all but one are cut out; one near the centre of the pot being preferred. Water is supplied in sufficient quantity to prevent any withering, but with care not to keep the soil very wet. The time for planting is usually about the first of March, but if planted April first, they will do much better than out-door plants. A few of these, for very early fruit, are planted in a slight hot-bed, late in April, and when danger from frost is past the glass is removed. The remainder are planted in open ground as soon as it can safely be done. My best and most productive plants last year, were planted out in ground prepared for melons, by plowing into a good, strong loam a liberal dressing of sand and manure, and then preparing hills by mixing three shovelfuls of horse and hog manure with plenty of sand and loam—the hill when finished being raised a few inches. When I wish to remove the plant from the pot I place one hand over the surface, (with the plant, of course, between the fingers,) and invert it, rapping the pot slightly, if the plant does not drop out without, when the whole will be found filled with roots, and if carefully planted but little check will be given.

A little exposure to the out-door air during the middle of the day, however, for a few days previous to planting out, is beneficial. The first fruit which ripens should always be saved for seed, and if two or more varieties are cultivated they should be planted as far apart as convenient, in order to prevent mixing. If trained on the sunny side of a building, or fence, the fruit will be sweeter as well as earlier. An abundant supply of sand in the soil also produces a similar effect.

William F. Bassett.

Ashfield, Feb. 20, 1862.

Agricultural Transactions.—We have the Transactions of the Hampshire, Franklin and Hampden Agricultural Society for the year 1861. It is now in the 44th year of its existence. In the account of the last Exhibition, the Secretary states "that in no sense have our agricultural interests suffered in consequence of the civil war now raging, the yield of crops being fully up to the average of past years." The Address was by T. G. Huntington, Esq., and an excellent one it is. He touched upon several points which cannot fail to arouse some wholesome thought.

Among the Reports, there is an extended one on Sheep, by Mr. J. E. Wight, and one on Stock in General, by George M. Atwater, George Taylor and T. P. Huntington. There are no others of special value.

LEGISLATIVE AGRICULTURAL SOCIETY.

Reported for the Farmer by D. W. Lothrop.

The ninth meeting of the series was held on Monday evening last at the State House. The subject for discussion was *Fruit Culture*, and the Hon. Marshall P. Wilder being present, according to announcement, presided.

The chairman thanked the committee for the position they had assigned him, and regretted his inability to be present at the last meeting. He thought success in fruit culture depended, first, upon the selection of a few good hardy varieties; secondly, upon proper soil and location; and thirdly, upon the care and treatment of trees. The adaptation of soil and position he regarded as very important, as different soils were congenial to different fruits. He alluded to a convention of fruit-growers at Albany—at which he was present—who were desirous of selecting fruit trees adapted to each State; but soil and external influences were so varied they found it difficult, and were obliged to make divisions of some of the States. Why this difference existed was not readily explained. A few varieties had a very wide range. The Bartlett pear maintained its excellence everywhere; it was the great market pear in London, and even in Paris. The western slope of the Rocky Mountains was referred to as an important climate for fruit, superior to the eastern in most respects, as even the foreign grapes would flourish there.

Mr. W. also spoke of the thorough drainage of orchards as the foundation of successful fruit-growing. Even side hills were benefited by it, and drainage should be the rule, not the exception. Before planting an orchard, the ground should be thoroughly trenched, or worked over, and the manure well intermixed. The soil need not be deep—perhaps about 18 inches—as the cultivator should aim to give the roots a lateral rather than a more descending growth. With good care, trees seven or eight years old, will have roots ten to twelve feet long.

As to the manuring of trees, the speaker thought it should be done in the autumn—the manure being placed on the surface and forked in two or three inches deep in the spring. The deep sinking of manure is objectionable, as chemists tell us its chemical action is in a measure destroyed or entirely prevented. On or near the surface, the external elements act upon it, it becomes rotten and fine, and its soluble ingredients sink to the roots and are taken up.

The speaker also alluded to pruning—the object of which is to regulate the sap and curtail the branches. Different varieties of fruit trees require different pruning. The time for this was when the trees or the sap was dormant—in early spring, even now, is the best time.

Mr. W. spoke, too, of the vicissitudes of fruit culture. The last year was very bad. It was the sudden changes of temperature in our climate that worked the great mischief. He alluded to the severe frost on the night of October 1st, 1860, which stiffened our grapes and froze the buds of his Chinese Azaleas. Also, to that on the succeeding 8th of February, when the mercury sunk to twenty-six degrees below zero, preceded by a mild day when it was fifty-two above—a difference of seventy-eight degrees in twenty-four hours! Even oaks were injured; but the circumstance exhibited the hardiness of many of our trees. And here, Mr. W. observed that he thought some of our pear trees were hardier than the apple tree. His Vicar of Winkfield, Louise Bonne de Jersey, Belle Lucrative and Urbaniste trees had not failed to give him fruit, while his apple trees did not yield. The effect of cold winds in the spring he thought disastrous to fruit trees and spoke of losing thereby a quantity of quince stocks. As we can make our soil good, favorable exposure of some trees as to ripening their fruit was important, as by doing so, we may gain in effect a degree of latitude. The Easter Beurre needed a warm exposure. With us it does not exceed over eight ounces in weight, but in the climate of California it has reached the enormous weight of forty ounces! He saw wax models of pears in Washington, eight inches in height and seventeen and a half in circumference! If we had that climate we could do the same; hence the importance of studying position.

The chairman also alluded to dwarf trees, and regarded many pears as better on quince roots than on pear. He had received a letter from Mr. Rivers, of England, who had lately examined some which were forty years old, and yet in good health. Trees succeed best in the climate where they are raised. We have a large number of new varieties, and as they promise well, the day may come when we can have some adapted to every position. The past season trees have grown well, with hard and well-ripened wood, and we may safely expect the coming season a great quantity of fruit.

In conclusion, Mr. Wilder spoke of fruit culture in his day, of the vast extent and varied climate of our country, and felt, as he always had, the greatness of such blessings; and as the names of Van Mons and his associates in Europe are not forgotten, let us and our children revere the names of Lowell, Downing, and others who have gone before us.

Mr. SHELDON, of Wilmington, being called upon, spoke of pruning. He thought there were two seasons when it was best to prune—in the autumn and in the spring when the days and nights were of about equal length; but prune even now. His best orchard had been pruned in March; he had experimented upon some of his trees by sawing off a limb each month, but thought the time mentioned the best. Trees two years from the bud, he regarded as the best for an orchard—better than those of three. To prevent mice from gnawing his young trees, he used sand around them, or trod down the snow. Of varieties of apples, he thought the Baldwin the best, and it sold well from the orchard; the market, too, was never clogged. The next best was the Gravenstein; he also praised the Green Sweeting; it was a great bearer, and the fruit good for stock. In this connection, he alluded to a fine horse he once owned, which he frequently let for parade grounds. He became troubled with glanders, and putting him to a doctor, the advice was at length to kill him. But he was placed in an orchard, and as the sweet apples fell he devoured them, and recovered, so that after being sold, he produced progeny worth $200 each. His most profitable apple, Mr. S. thought, was the Red Astrachan, though they were getting plenty, and would become less profitable. He had sold some for $6 a bushel at the Revere House. But the Baldwin was best for market, and as to the Northern Spy, it was out of place on our cold New England hills.

Dr. LORING, of Salem, being called up, said he was not versed in horticulture, but would make a few inquiries. Was it best to raise even the hardiest pears rather than apples?

Mr. WILDER replied that apples would succeed well on poor land, and some varieties were even better on such soil.

Dr. LORING resumed, and observed that apples were the farmers' general fruit. Custom frequently decides the crops of our country, and as to English grass, that had received the sanction of our farmers. Would it be safe to graft the suckers of old orchards, or would it be better to replant young trees?

Mr. WILDER replied that he would as soon engraft a child on his father's head as a scion into a sucker. Old stocks from the forest, which some had sought, were a like curse.

Dr. LORING was glad of this distinct opinion. He then alluded to Mr. Sheldon's idea of fruit-raising being a profitable branch of farming, which called up the latter gentleman.

Mr. SHELDON spoke of planting an orchard on a stony hill, covered previously with pitch pine, which did not grow well. He took out a large quantity of rock, so as to sensibly lower the field. He had another orchard on a plain, but it was not worth half as much as the one on the stony, rocky soil. His neighbors said it was useless to plant trees in Wilmington, but he had sold more apples and potatoes than any twelve men in the place. His townsmen did not think farming was profita-

ble, but he did, and preferred to be a farmer in Wilmington than anywhere else. Boston market was good, and the Woburn very respectable.

Dr. LORING observed that the question of profit would decide the question of fruit raising. He had his doubts whether orchards were as good as crops. An apple tree was useless at fifty years old, it would bear only about thirty-five years, and then only in alternate years, while little else could occupy the ground of an orchard He would not speak directly against trees, but he would have them on land that was not suitable for other purposes.

Mr. SHELDON again spoke, and said apple trees would bear at twelve years, and alluded to his own profits of fruit culture.

Mr. HOWARD, of the *Cultivator*, spoke of the adaptation of trees to soil and climate. Varieties fit for cultivation were few, compared with the whole number. Natives are the best. The Greening, Roxbury Russet and Baldwin were mentioned as standards of excellence. Other varieties in the West may be profitable, but will they answer here? The Tompkins County King was alluded to as beautiful there, but not tested here. Generally, the New York apples will not flourish in our regions—witness the Newtown Pippin and the Esopus Spitzenberg. Mr. H. saw the former in Europe, where they were selling at a sixpence apiece—the best apple they knew. The best fruit fairs in England he did not attend, but those in France he did; yet they did not come up to ours. Their pears were better, but the American and Canada apples maintain their superiority over the world. He would not advise every farmer, however, to make fruit growing a specialty. Our apples are so good, there can be no competition in Europe. He spoke of a single firm that had shipped 80,000 barrels. Pear trees, he thought, had suffered much from cold winters, and it was a caution to us to select the most hardy.

Mr. WILDER said the Tompkins County King indicated as well here as in New York. At a vote of the North-western Fruit Growers' convention, the choice apples stood as follows:—Baldwin, Rhode Island Greening, Roxbury Russet, Tompkins County King, and the Tolman Sweet. It is the fluctuations, rather than the cold, which injure our trees. The Tartarean cherry is hardy at home, but tender here from the revolutions of our seasons. Inquiry being made as to digging a hole for trees, Mr. W. said again that the soil should be trenched about eighteen inches deep, with the manure well incorporated, so as to encourage the lateral growth of roots. Holes for trees were potholes for water. He did not think much could be done with old trees, but by removing the grass and putting on ashes and lime, they might be improved.

Mr. SARGEANT inquired of Mr. Rogers's hybrid grapes, and the chairman replied that they were the first instances of the artificial crossing of the grape; but if the subject were continued at the next meeting, they might be again alluded to.

Other short speeches were made, when Mr. WETHERELL moved to lay the *same subject* over for discussion at the next meeting, which motion prevailed. It is understood that grapes, strawberries and the smaller fruits will then be particularly discussed.

For the New England Farmer.

A SPRING SONG.

BY JOHN CALVIN GITCHELL.

We count the hours that come and go
  Between us and each hoped-for pleasure,
Impatient that they move so slow,
  To make complete the dial's measure;

But dare not note the hours that pass
  Between us and a looked-for sorrow;
And only cry, alas! alas!
  Let it not come until to-morrow.

God gives us buds in the spring-time,
  In summer, full-grown leaves and flowers;
And yet some deem it is a crime
  To worship Flora in her bowers.

But on we move, and on we move,
  And country bards will still keep singing—
"The months are here for holy love,
  For leaves and blooms to life are springing!"

Boscawen, N. H., March, 1862.

For the New England Farmer.

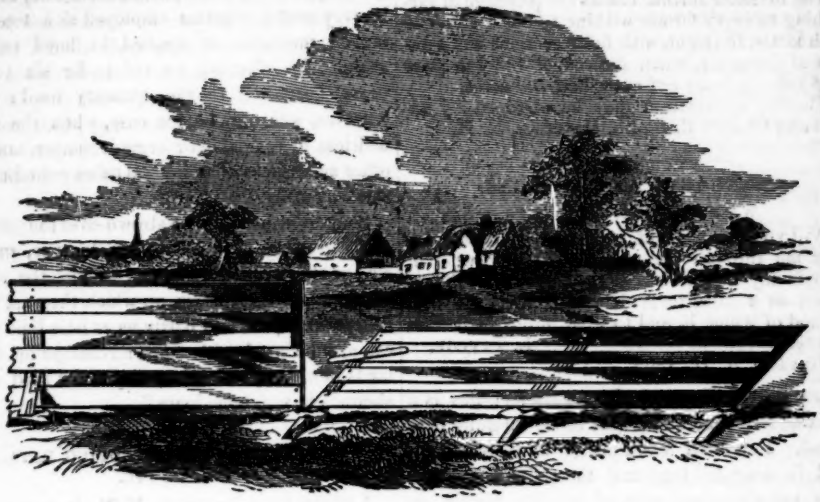
PLAN OF A SHEEP BARN.

"Subscriber," of Rumney, N. H., wants a plan of a sheep barn of capacity to accommodate 200 or 300 sheep, standing on level ground.

I give you a plan, according to my idea, that may meet the approbation of some who may be about to build for the same purpose.

The barn should be at least 40 by 60 feet; a floor or driveway 12 feet wide, running through the centre from end to end, leaving 14 feet on each side for leantos. The floor or driveway to be elevated 2 feet, by framing in to the posts an extra tier of timbers for the floor to rest upon. There are two advantages gained by the elevation: first, the pitching off hay from the cart, and second, by giving a good chance for racks to feed in, off the side of the floor. The racks should run the entire length of the barn. Rack rounds should be set 4 inches apart from centre to centre. A crib should be made at the bottom of the rack, about 14 inches wide, with uprights 15 or 16 inches apart, going into the rack nave. If more racks are wanted, put in short ones across the leantos, which will, at the same time, divide the flock if you choose. There will be a good chance for a cellar under the floor, costing but little to dig it, the floor being elevated. When the barn is well underpinned, then fill up the leantos, to the bottom of the sills, with sand or loam, which will be preferable to a floor, making a good place for composting leaves, straw, &c., with the droppings of the sheep. SUBSCRIBER.

Groton, N. H., 1862.



For the New England Farmer.

SMITH'S IMPROVED FARM FENCE, PATENTED OCT. 11, 1859.

NUMBER TWO.

This fence is made much in the same manner as No. 1, except the fastenings of the posts and braces. It is built in sections of 16 or 18 feet each, so as to be let down flat to the gronnd, while it is held securely to the stone foundation; thus adapting it to all low lands subject to floating ice and drift wood, and also to places where snow-drifts are troublesome in the winter. When there is danger of the boards being trodden upon by cattle the sections are numbered, and can be easily detached from their foundation, and piled up, or removed to a place of safety. The stones upon which the fence rests are placed deeper in the ground than those for No. 1, so as to allow the sections of the fence, when turned down, to lie as nearly flat as possible, and thus prevent it from warping.

When it is necessary to let the fence down, (which should be in the direction the current runs,) a person passes along on the opposite side of the fence, and with a hammer unfastens all the braces from the posts on that side, and turns them down; which is easily and quickly done; then, on the other side, turns up the caps which confine the outside posts of each section, at the top; then unfastens and turns down the braces which support these posts, leaving the brace against the middle post for the last. This is then unfastened, the section let down, and a stake about 2 feet in length is driven diagonally into the ground between the upper panels of the fence to prevent this part of it from being lifted up by the water.

The deep snows and driving winds of the present winter have taught us severe lessons as to the great inconveniences of snow-drifts. From Maine to Maryland, and from the lakes to Tennessee, there is hardly a square mile of territory over which a road passes, but where snow-drifts are more or less troublesome. The roads leading from our State capital to many of our largest towns, for weeks together, have been, in many places, absolutely impassable. An immense amount of labor and steam has been expended upon our common roads and railroads to keep them open. Travelling over many of our roads, in any way except on foot, at the present hour, is unsafe if not dangerous. A single step out of the track, and your horse flounders in the snow, and the only chance of getting him back into the path is to release him from the sleigh, and then, perhaps, after a few more plunges you find yourself and horse ready to repeat the experiment as soon as you meet another sleigh! In many places business over the road is suspended, or the roads are abandoned, and the travel goes round through the open field, and one is very apt "to wonder" whether dogs and sledges would not be an improvement.

Now what are the causes or these snow-drifts, and is there no remedy? The snow seldom drifts in the open fields, or in the cuts for our common roads or railroads. There is not a single doubt that nineteen-twentieths of them are caused by road fences; and if the publishers of the *Farmer* wish to know how deep the snow is in this region, I can answer correctly. It is good 2 feet in the open fields, and from 3 feet to 5 feet between the road fences. A well built dam does not more surely arrest the waters of a running stream than do these fences the drifting snows of winter. Remove the cause, and the snow will find and keep its level almost as well as water, except in low places, and even in those it will not be very troublesome.

Now for the fence. Two men can remove the sections of No. 2 fence, and put them back in the spring in less time than it will take to open a road the same distance, after a single driving snow storm. As lawyers sometimes say, "Here we

will rest our argument." And if I fail to get a judgment in my favor, I will not blame the court, but myself.

The inventor further claims the privilege of furnishing to every farmer wishing to build either or both kinds, the right, with full directions and samples of fastenings when desired, at the low price of $5,00 for farms not exceeding 100 acres.

Further information may be obtained by addressing Charles R. Smith, Haverhill, N. H.

EXTRACTS AND REPLIES.

WASTE OF SOAP FACTORIES.

Will you, or some of your correspondents, inform me through the monthly *Farmer*, whether there is any value in ley, or the refuse of soap factories, as a fertilizer? If any, what is the best method of using it, and to what crops is it best adapted? L. TAYLOR.

Hinsdale, N. H., 1862.

REMARKS.—The waste from soap factories is a valuable fertilizer, and ought to be carefully preserved. Formerly, wood ashes was exclusively used in soap-making, and then the waste was more valuable than now, when soda, barilla, or common salt, are used instead. We find some statements in the books to the point in question. "It is the opinion of many, that ashes of soapboilers especially act by the potash they contain; but this is an error; for, in subjecting them to chemical analysis, they were found by Sprengel to consist of the following ingredients in 100,000 parts.

Silica	35,000
Lime, mostly in a caustic state	35,010
Manganese	2,330
Alumina	1,500
Oxide of iron	1,700
Oxide of manganese	1,340
Potash, combined with silica into a silicate	500
Soda, " " "	180
Sulphuric acid, combined with lime into gypsum	190
Phosphoric acid, combined with lime	3,500
Common salt	90
Carbonic acid, combined with lime and magnesia	18,160
	100,000

Of soapboilers' ashes, in a dry state, from 2000 to 3000 lbs., (40 to 60 bushels,) may ordinarily be used on an acre of land. From 3000 lbs., the soil would obtain about 920 lbs. of lime; 70 lbs. of magnesia; 15 lbs. of potash; 5 lbs. of soda; 12 lbs. of gypsum; 230 lbs. of phosphate of lime; and 3 lbs. of common salt, by which it will be seen that they owe their fertilizing properties mostly to the caustic and carbonate of lime, and the magnesia and phosphate of lime, as their 15 lbs. of potash, 12 lbs. of gypsum, &c., may produce a very inconsiderable effect, particularly as the potash is also combined with the silica into a substance not soluble in water.

After manuring with soaper's ashes, plants of the clover tribe will be benefited; and the fresher the ashes are, the more effective they will be, as they then contain much caustic lime, by which, especially the *carbonic humus*, or the organic matter in the soil, is effected and changed into humic acid. Soils which contain very little lime will always be best improved by them; and in this case, they will be very useful, whether employed as a top-dressing on meadows, or applied to hoed crops or grain. The effect will be visible for six to nine years, according to the quantity used; which, however, will only be the case, when the soil is deficient in vegetable or organic matter, and such other substances of which the ashes contain but a small quantity.

Soapers' ashes may be strewn over the crops already growing, such as clovers, lucerne, grasses, &c., or they may be harrowed in with the seed of winter or summer crops, on which they act partly as leached ashes, and partly as caustic lime; they can also be used with some advantage on boggy lands newly cleared, or on any moist land which abounds in vegetable loam."

—

POISONED WHEAT FOR DESTROYING RATS, MICE, CROWS, ETC.

A pedlar from Brooklyn, N. Y., is now around the country selling poisoned wheat for the extirpation of vermin. He sells packages containing about one gill to druggists, traders, &c., at 12½ cts. each, to be retailed for 25 cts. The wheat is poisoned by being soaked in a solution of corrosive sublimate slightly sweetened with molasses. I have no doubt it is a good article for the destruction of rats and mice, and possibly for crows. But I think farmers can get poisoned wheat or corn for less than $64 per bushel, the price at which the above is retailed. I will give you a recipe on which you may rely:

R. Corrosive sublimate.....one drachm.
Alcohol.....one pint.
Molasses.....one tablespoonful.

Dissolve the corrosive sublimate in the alcohol and add the molasses. Pour this upon four quarts of wheat in an earthen or wooden vessel. Cover and let it stand, stirring occasionally until the liquid is absorbed by the grain. Then spread and dry the wheat, and it is ready for use. This quantity contains 32 gills, which at the retail price would be $8. Cost, including wheat at $2, about forty cents. FOIL.

—

MANUFACTURE OF BEET SUGAR.

In your paper bearing date March 1st, I notice an article written by Thomas Cruickshank in regard to making sugar and brandy from beets. Will you, or some one of your correspondents, be kind enough to give me more information on the subject.

1. As to the kind of beet best suited for the purpose.

2. The best method of pressing sugar from them, and also brandy, with description of apparatus needed.

3. The cost of all the necessary apparatus.

Rockingham, Vt., 1862. H. E. ADAMS.

REMARKS.—We have some further information in relation to this subject from Mr. CRUICKSHANK which we shall find room for soon.

TAN BARK FOR SOILS.

As the questions which you were kind enough to answer in your February number of the monthly *Farmer* seem to have brought out some ideas different from your own, in regard to the best time and manner of sowing grass seed, will you please allow me room in your valuable paper to propose a few more, for your own and your correspondents' consideration?

On my farm I have three distinct kinds of soil; the first is a hard, deep upland soil; the second is a shallow, light and much worn pine plain, and the third a deep, heavy loam and clay, or commonly called run land. Now I have a large quantity of spent tan from hemlock bark, and as I believe there must be valuable fertilizing qualities in it, I wish to know the best way of applying the same, and which of the three soils will receive the quickest and most lasting benefit from a generous application?

I am but a young man, and am obliged in some respects to be guided by older and more experienced persons than myself; therefore, whatever thoughts these questions bring out will be of benfit to me, and I believe to others of your readers.

North Dunbarton, N. H., 1862. P.

REMARKS.—We should think the tan bark, in an old, partially decomposed state, would operate favorably on any land, but with especial effect on the second and third sorts you mention. At an agricultural mass meeting which we attended in the town of Marlow, N. H., some years since, it was stated by one of the speakers that the best piece of land then in the town was originally a barren plain, once covered with pines, and that it had been brought into a state of great fertility, chiefly by the use of *hemlock* tan bark! The piece of land was distinctly specified, and reference was made to other persons in the meeting who confirmed the statement of the speaker.

—

LEGHORN FOWLS.

Although much has been said about Leghorn fowls, I am aware there are those who do not know what full-blooded Leghorn fowls are. A gentleman of this city came to me and wished to purchase some of the best Leghorn fowls he could find, and as I did not wish to dispose of any, I referred him to a piece I saw in a paper, where a man spoke highly of a large flock which he had, and advised him to send for some. He ordered six of the best he had, or none. He received six fowls, and wished me to see what I thought of them. He said one of my fowls had more comb than all of them. I said I thought they were half grown Leghorns, or half bantams. He assured me that some of them were shedding their feathers. He set the coop in his hen-house, where he had a fine Leghorn cock, who was so disgusted with his company, that he made war with the coop of fowls, and scratched himself so that he bled to death. He returned them to the owner, and concluded he did not profit much from my advice.

I have kept the pure Leghorn fowls about two years, and think all who have tried them will agree that they are the most profitable and the most beautiful fowl in this country. They are small, (weighing about 8½ lbs. per pair,) but their eggs are as large as hens will average. I have never had one offer to sit. They are all colors, and have very large combs. The cocks measure from seven to eight inches from the top of the comb to the extremity of the wattles, and the hens' combs hang over so as to cover the eye.

H. T. GATES.

New Worcester, March, 1862.

—

THE WAY TO CURE THE HEAVES IN HORSES.

The above-mentioned disease has been considered incurable. About two years since, I owned a mare which had the heaves very badly. The disease was brought on by feeding her dusty hay, raked with a wire tooth horse-rake; which, by the way, should never be used to rake the hay with that we intend to feed to horses. Dusty hay is very injurious to their lungs, and has been the principal cause of the heaves in many cases.

At the time I was speaking about, I saw a notice in the *Farmer* that smart-weed would cure the heaves; I procured some, and gave her a strong decoction of it several times; and to my astonishment, she was completely cured.

I gave her one quart a day of the decoction, stirred up in wheat bran, with a little salt, and in three weeks the cure was perfect.

I do not intend to say that it will cure the heaves in all cases, but if it is given in the early stages of the disease, I think it will cure ninety cases out of a hundred.

I would like to have your correspondent, Mr. Thomas Cruickshank, inform me through the columns of the *Farmer* the mode of manufacturing sugar from beets. OLIVER P. MEAD.

Middlebury, Vt.

REMARKS.—We give another letter to-day, from Mr. C., on the subject of sugar-making.

FEEDING BONE DUST TO COWS.—Your correspondent "Country," says his cow's toes grow too long. I have had sheep's toes do the same while stabled. Some time ago, a young farmer living some 20 miles from me, said that he had, at different times, in his barn, cows whose claws would grow too long, and occasionally one claw would grow around the end of the other claw, and that it was cured by feeding bone dust. He had fed as much as one tablespoonful each day to a cow in cut feed, with marked effect. He acknowledged it was full, strong feed. I generally feed one tablespoonful twice in a week to each cow, but do not know its effect. My reason for doing it, is, that my neighborhood has been pastured these 200 years, and little or no manure put on the ground, hence the soil is wanting in bone-making materials.—*Country Gentleman.*

TO MAKE AN EVERGREEN GROW COMPACT.—If you have an Evergreen, or Norway Spruce, Balsam Fir, American Spruce, or any of the pines, and desire to make it grow more compact, just pinch out the bud from every leading branch, all around and over it. Repeat this process again next year, at this time, and your evergreen will continue thereafter to grow thickly.—*Indiana Farmer.*

LEGISLATIVE AGRICULTURAL SOCIETY.

REPORTED FOR THE FARMER BY D. W. LOTHROP.

The tenth meeting of the series was held on Monday evening last at the State House, when the continued subject of *Fruit Culture* was discussed. Mr. C. M. HOVEY, editor of the *Magazine of Horticulture*, being present, was invited to preside.

He accepted the position of chairman with pleasure, and proposed to speak of the strawberry. Small fruits had been sadly neglected in our gardens; but the strawberry was of easy cultivation, took up but little room, was healthy and agreeable to the system—no one being able to eat too many—and was prominent among the small fruits much needed in the summer. He gave a brief history of the strawberry in this country and in Europe. There were but few kinds generally cultivated there, till the introduction of the American strawberry about a hundred years ago. When the London Horticultural Society was organized, a new interest in this fruit was awakened. Messrs. Keen, Wilmot and Knight raised many new varieties, and some of them very good. In 1824, the London Society took steps to test the kinds in cultivation, and out of two hundred varieties, only fifty-four were regarded as distinct. The American strawberries are different from the English. The *Wood*, heretofore a distinguished variety, had not been changed or mixed. About the year 1834, another impulse was given to strawberry culture in England, and while some of the varieties did well there, they would not succeed here.

In this country, we have no definite records upon this subject. The *Virginia* and the *Wood* seemed to have been the first and the only varieties cultivated in this country for many years. Mr. William Prince, of New York, however, imported many new varieties from Europe, and *Keen's Seedling* and *Wilmot's Superb* were introduced here. Mr. Hovey observed that he procured many sorts from Mr. Prince, but was disappointed in them, as they were not fitted for our climate. In 1833, Mr. H. commenced to raise strawberries from the seed, and produced the well-known variety called *Hovey's Seedling*, which soon began to supplant the old *Virginia* and *Wood*. It was the first seedling in the country, and attracted great attention—many amateur cultivators commencing to raise from seed, as it was an exciting and novel matter.

Mr. H. spoke of the different species of the strawberry; of its classification by Linnæus with respect to its self-fructifying power, having perfect flowers, containing both stamens and pistils; of kinds that would mix and those that would not. The *Chili* strawberry was large but insipid; yet ours are acid. By a mixture of these, many good varieties had been produced. Strawberries of different habits, as to running, &c., require different treatment.

The chairman also spoke of culture, which was simple. It should be good to produce large fruit, but required care rather than labor. Some had neglected the new kinds and had met with disappointment. The large varieties need more room than the old, small varieties—room in proportion to their size. He spoke of Mr. Knight's method of planting vines in the spring and letting them run in the summer to produce vines for the next season; they should then be dug up and a new bed formed. Plant in rows four feet apart. The celebrated Cobbett had taught a doctrine similar to this. As to manure, stimulating manure was hurtful. Manure should be applied when the bed is set out, and then again when reset. The annual system, now practiced by our Belmont cultivators—that is, of raising only one crop before digging up the bed—he thought the least laborious and productive of the best results. Plant in rows in the spring four feet apart, and let them grow the first summer. In October hoe out an alley and cover the vines. In fifteen months, the crop is picked. Then turn the bed over, and so arrange the cultivation that while some beds, or parts of beds, are forming vines, the others will be bearing—thus yielding fruit annually. Plants of a bushy habit should be planted in single rows; they are good for the amateur, but should not be suffered to grow thick. A gentleman in Pittsburg, Pa., cultivates these varieties with a horse cultivator. Guano was a dangerous manure in some hands; but a little will do for strawberries. Watering the plants in England was common, as moist as their climate is; yet size was produced at the expense of flavor. Our vines in some seasons need watering, but let it be done in a thorough manner, not an occasional dribbling. Good, well-rotted manure is best, laid on the soil before the runners are planted, or dug in when the old bed is turned under. Mr. H. recommended straw under the vines as a mulching; but tan was objectionable, as it harbored injurious insects.

As to profits, the chairman observed, that though large stories were often published, we should not make the cultivator think he could get rapidly rich. He spoke, too, of the cost of culture; of the carelessly picked strawberries in the Cincinnati market, with their hulls upon them; of the number of bushels to the acre which it had been stated were raised; of 4000 quarts per acre by some of the Belmont cultivators, and even greater, seven-eighths being Hovey's Seedling. Gathering in Philadelphia had been stated to cost one and a half cents per box; but in Belmont five cents is paid to men who understand the business. How many boxes could be picked in a day depended upon the size and varieties. The im-

portance of raising new kinds was alluded to; though some cultivators cling to the old sorts; yet we should be careful in introducing new varieties. The late kinds were the most profitable, as the New York strawberries were in our market in early summer. *Wilson's Albany* was much cultivated, but though large and plentiful, it was decidedly sour. *La Constante* was a large and very superior variety. Only a few and the best should be cultivated.

Hon. MARSHALL P. WILDER, being called upon, remarked that he would gladly confirm what the chairman had said. Strawberries should be planted in the spring; the plants should be strong, the ground well prepared, and receive careful subsequent treatment. The second year they will bear great crops; then break up the bed and replant. This is what is called the annual or Belmont system. Mr. W. also alluded to Hovey's Seedling. Its production introduced a new era in strawberry culture. It yielded the largest crop of any sent to our market, and must be regarded as a standard variety. All honor to Mr. Hovey. The importance of the discovery of the sexes of plants was referred to, and Mr. Knights' efforts at hybridization in the production of new varieties of fruit was extolled. This is to be the true source of new fruits, but let us still sow seed from natural hybridization. Pistillate flowers must have staminate flowers for their impregnation, though generally both are united in one.

The speaker, in answering an inquiry regarding Mr. Rodgers' hybrid grapes, said these are new varieties raised by artificial crossing of the *Black Hamburg* and the *Sweetwater* upon the wild grape, (*Vitis labrusca,*) of our woods. About thirty varieties were produced, and while some are of great promise, it is too early to speak distinctly of them. This country, Mr. W. thought, was destined to become a great grape-producing and wine-producing part of the globe. As our grapes do not do well in California, nor theirs here, seedlings become more important. The *Concord* is a hardy grape, better farther south, but good enough here. The *Delaware* is a small grape, not very pleasing in appearance, but of a higher character than the Concord. The *Hartford Prolific* is doing well, and did not seem to fall from the vines the last year. We need hardy grapes, and we may yet raise some better than the Concord. A hardy and *early* grape is a great desideratum.

But, Mr. Wilder said, he would turn from this subject to another, different in its nature, but not less pleasing to dwell upon. There is a gentleman among us, who has attended these meetings a long time, and participated in these discussions, himself a thorough, practical farmer, and who said, the other evening, "he would give more for one day's experience than a whole year's guessing," of whom he wished to speak. He referred to Mr. A. G. SHELDON, of Wilmington. He proposes to publish a small book, embracing his autobiography, and all the various subjects of practical farming in his experience. Mr. W. warmly commended the project, and said the work could be subscribed for after the meeting, at 50 to 75 cents in cloth, or $1,00 or $1,25 in calf.

Mr. WETHERELL endorsed Mr. Wilder, and hoped the work would be encouraged.

Mr. HOVEY also warmly favored it. We should have books that are books—not shadows. A book at hand of experiences is important.

Inquiry being made as to whether the *High Bush Blackberry* was injurious to the soil or not, by any poisonous exudations from its roots, the chairman replied that he did not know of any such effect. It was hardy, and occupied the ground rapidly; but the suckers should be cut up, and the best canes tied to a stake. It was an important fruit, and he had rather do without the raspberry than the blackberry, as it was late. He spoke of the *Dorchester*, and thought, also, that the *Lawton* was a valuable acquisition. The former, he believed, would pay as a market fruit.

Inquiry being made as to whether the *Huckleberry* had been cultivated, Mr. WILDER observed that he had received seed of a large kind, growing in Washington Territory, five or six feet in height, which he thought would be valuable in our gardens.

Inquiry being also made as to the *Cranberry*, the chairman spoke of Sir Joseph Banks raising it upon high land. Mr. H. thought it worthy of the cultivator's attention; and as he had seen some very large ones from Pawtucket, R. I., he thought of procuring the seed, and trying his hand at seedling cranberries.

Mr. BECKWITH said he had seen some very large cranberries growing in a gentleman's garden on dry soil, the vines being taken from a pasture of a gravelly nature, where they had been growing for years.

Mr. WILDER spoke of the *Dorchester* and *Lawton Blackberries*. They are both hardy, but the latter is not eatable till very ripe, yet is a little larger than the former. The Dorchester was found in the lower part of his town some years ago, and he likes it best.

Mr. HOVEY said the *Dorchester* would give the best satisfaction, but if he could get the *Lawton* fully ripe, he preferred it.

Mr. HOWARD, of the *Cultivator*, said of the *Cranberry*, that we had two species, the meadow and the mountain. He had seen the latter on Blue Hill and in Sharon. It was common in Massachusetts and in Canada. But he intimated that they must have moisture, whether high or low.

Mr. SHELDON said that from some facts which he had observed, he thought sand good for the cranberry, but they should be kept moist and occasionally flowed.

Mr. Beckwith, Mr. Wilder and the chairman made a few more remarks upon this point, when the time having passed for closing the meeting, the subject for the next discussion was announced to be, *Farm Implements.*

For the New England Farmer.

NOTES FROM THE MONOMACK.

BY SAGGAHEW.

GRAPES.—Last spring I set out nearly one hundred grape vines, of various kinds. They were set upon a piece of land newly trenched; the soil was mostly a medium sandy loam, with a subsoil of sand and gravel. Through one part of the piece there is a strip, or vein, where the soil was quite thin, and the subsoil is a dry, coarse gravel. This was trenched like the rest, about eighteen inches deep, and, like the rest, was quite moderately manured with green cow manure. As will be remembered, the last season was an unusually trying one for newly transplanted trees and vines, and as my land was of the kind generally considered the most susceptible to droughts, and was not in even average condition as to manure, and, moreover, had just been trenched, I did not expect much growth of vine—at least, for one or two years,—through the gravelly portion above mentioned. Judge of my surprise, then, on finding that the vines set in that part of the garden made the most vigorous growth of any I had. I speak within bounds, when I say that a Hartford Prolific, a Concord, and a Diana, which were set in this thin, poor and gravelly soil, made double the growth of vines of the same age, set out at the same time, and taken from the same lots, but which were set in soil at least twice the depth, entirely free from gravel, and resting upon a subsoil of clear sand.

As a single year is insufficient to justify too strong conclusions as to which will do the best in the long run, I make a note of the above for the encouragement of those who may wish to set out a few vines, but fear that their soil may be too poor and gravelly for vines to succeed. To such persons I would say *trench* your ground thoroughly; put on much or little manure,—as you may chance to have it—and set out your vines. Afterwards, you can top-dress at your leisure. If you cannot afford to trench all the ground now, trench at least three or four feet around each vine before you set them out. Next year you can work over a few feet more, and in this way you will hardly feel the expense. Many person neglect to do *any* thing, because they are not prepared now to do *every*thing. This is not the true policy. Rather do a little at a time, and *keep doing.*

BUCKWHEAT CAKES.—If any one of the readers of the *Farmer* are fond of buckwheat griddle cakes, and like them all the better when light and crispy, let them use about one-fourth part of oatmeal in making them, serve them hot, from a *un*covered dish, and in the winter on warm plates. My word for it, they will decide that these hints are good ones.

The oatmeal makes the cakes lighter, healthier, and improves their flavor; and the uncovered dish prevents them from becoming sodden by steaming. The best of all griddles to cook them upon are those made of soapstone. They require less care in cooking and not more than half as much lard as the common iron griddles. My family have breakfasted on buckwheat and oatmeal cakes for the past eighteen months, without regard to the season; and, although personally a chronic dyspeptic, I find them easy of digestion, and every way satisfactory. My family of five persons consume less than ten pounds of meal per week, at an average cost of less than three cents per pound, or less than one cent per breakfast for each person. When served as above directed, with good butter and syrup added, I doubt if a cheaper or better breakfast can be placed on a workingman's table.

GUANO.

"How much *guano* is necessary for an acre of corn?" This inquiry is often made. No definite quantity can be given in reply, because the circumstances under which it is used, will always be variable. As a general thing, too much is expected of guano, or any of the other so-called, specific fertilizers. Used sparingly, as they are usually employed, their principal office is to give immediate nourishment to young plants, and enable them to throw off vigorous roots in search of food farther from home, and to push them along rapidly in the early stages of their growth.

In order to accomplish these purposes, the opinion seems to be common, that 300 pounds of guano, or other specific fertilizer, is enough. We, however, think this quantity too small—that it is more profitable to add a larger amount per acre, and go over less land,—unless the dressing from the compost-heap is unusually large. Whatever the amount used, we think it should be mixed with good muck or loam—to which a little plaster may be added with great propriety—and a quart applied in the hill. This quantity will be sufficient to give the plants a good start, and maintain their growth and development until the roots shall have had time to penetrate to the manure which has been plowed in, or to take hold of the food naturally extant in the soil. The application of Peruvian guano alone in the hill is not advisable, as the ammonia in which it abounds exists in a too concentrated state to allow of its coming into immediate contact with the seed while in a state of germination, or even with the tender roots of vegetation. By incorporating it with mould, muck, or plaster, the guano will be less likely to cause the mischief which is sometimes experienced by the escape of its ammonia. We have known Peruvian guano to be mixed with old, finely-pulverized muck, early in March, in the proportion of *one* part of guano to *five* parts of muck. This laid in a mass from that time to the tenth of May, being

overhauled and thoroughly mixed two or three times during that period. It was then applied, about half a pint to each hill, and the corn dropt upon it, and in a field of ten acres there were not 500 spears of corn made their appearance. Even as we have recommended its application above, it would always be safer to mix the muck and guano with the soil, before dropping the corn upon it.

The American guano, having less ammonia, may be used by planting seeds directly upon it, but in this case we cannot doubt but it would be better to mix it with the soil into which the seed is planted. This guano, however, abounds in phosphates, and continues to carry the crop on until it is perfected.

Guano, purchased at fair prices, and judiciously applied, is an economical and efficient fertilizer. It is usually beneficial upon every description of soil and crops.

TO CORRESPONDENTS.

As usual, at this season of the year, we have on hand many communications that we cannot find room for at once. We shall publish first those that are adapted to the season, and then continue with others. These articles, we suppose, are the result of winter studies, and as the spring opens we shall have less of them. We hope our friends will continue to write, as the value of the *Farmer* must depend in a considerable degree upon their communications. Among the articles recently received and not published, are,—Upon Rivalry in Farming; The Right Thing in the Right Place at the Right Time; Barns; Why are so Few Young Men Fond of Farming? Patent Office Report; Mental Culture; Decline of the Hen Fever; Rotation in Forests; The Turnip Crop; About Bees; Fences; Why is not Farming Profitable? How Shall our Sons be best Educated? The Roadsides of the Farm; Agriculture in our Common Schools; Southern Illinois; Hints on Buying Farms; Does Farming Pay? Dissemination of Foul Seeds;—Painting and Shelter for Buildings; Agriculture in our Colleges; Plowing Orchards; Farm Buildings; Birds; On Deodorizing Materials; Ringing Plants; Sheep Barns; Meadow Muck; Wood's Mowing Machine; Clay as a Fertilizer; Culture and Uses of Kohl Rabi; New Method of Planting Potatoes; Quality and Quantity of Seed; Wheat Bran as a Fertilizer; Concentrated Manures; Sawdust as an Absorbent; How to Measure Hay; To the Young Men; Raising Calves; Culture of Leading Crops; St. Johns Wort; A Word about Colts; and The Characteristics of the Chester Co. Breed of White Swine. In addition to these there are letters of inquiries, all of which will be carefully attended to and find a place in good time. Correspondents will please accept our thanks for these favors. Spread out upon our fair pages, they cannot fail of having a decided influence to advance our noble Art and elevate the homes of our people.

LADIES' DEPARTMENT.

DOMESTIC MORALS.

Who shall measure the evil brought into a school or university by one black sheep? The contamination is gradual, but certain, and many characters of the weaker sort, will, by bad association, receive that bias towards evil which was all that was necessary for their ruin. It is so, as we all have opportunities of seeing, among domestic servants. Their power of injuring each other is immense. Take the case of a small establishment, consisting, we will say, of a couple of servant maids, who have been brought up from the country. They are uninitiated in the slang of the London members of their tribe, and are contented and happy. They can exist without followers. They can do all the work of the house with ease and cheerfulness. They will take what it may be convenient to give them for dinner and supper, rather astonished, in fact, at fare so much superior to what they have been accustomed to in their own poverty-sticken homes. In short, they are good and contented servants, and their mistress congratulates herself with reason when she hears her friends complaining of domestic troubles. But how long does this last? On some special occasion of a grand cleaning, or some equally miserable disturbance, "help" is sent for, and the charwoman of discord is flung into the happy family. This worthy lady is kind enough to enlighten the two injured innocents to whose rescue she has come, as to their "rights." For these she exhorts them to stand up, as other servants do. What, will they "put up" with cold meat? are they satisfied to be deprived of the visits of their male relatives and other friends "from the country," whom they might regale so pleasantly and cheaply with their patron's food? Well, they are poor-spirited things if they allow themselves to be put upon like that!—*Dickens's All the Year Round.*

To Remove Stains.—Alcohol will wash out stains of oil, wax, resin and pitchy substances; so will spirits of turpentine, and generally without injury to colors. The turpentine may afterward be removed with alcohol, as it is liable to leave a slight stain. Common burning fluid, which is a mixture of alcohol and turpentine (or camphene,) is an excellent solvent of oil, wax, tar, resin, etc., and it soon dries off after use.

The Paris women are excited about an electric head-dress invented for the Empress Eugenie. It is a crown formed of globules of glass lighted by electric light, and set with diamonds, rubies and emeralds. It emits such an effulgence as to light up of itself a dark room, and if ever put into general use, will supersede the necessity of gas light or wax candles. Every lady will be her own chandelier.

SUBSTITUTES FOR COFFEE.

The high price of tea and coffee has caused many to adopt substitutes for a morning beverage. Go where you will, you hear the subject discussed, and stepping into houses, you are regaled with the odor of burning peas, rye, barley, or whatever is designed for a substitute. That some of these articles will make a very palatable and wholesome beverage we think no one will deny. We give below some of the recipes that are floating around, and have been commended:

Rye Coffee.—Take a peck of rye and cover it with water, let it steep or boil until the grain swells or commences to burst, then drain or dry it. Roast to a deep brown color, and prepare as other coffee, allowing twice the time of boiling. Served with boiled milk.

Another.—Take some rye; 1st, scald it; 2d, dry it; 3d, brown it, and then mix it with one-third coffee and two-thirds rye, and then you will have as good a cup of coffee as you ever drank.

Sweet Potato Coffee.—Another writer, in one of our exchanges, gives the following recipe for the preparation of a substitute for coffee. We give it for what it is worth, never having seen it tried:

"Take sweet potatoes, cut them fine enough to dry conveniently, and when dried, grind in a coffee mill; dry them by the fire or stove at this season of the year, or by the sun when that will do it; grind and use, mixed with coffee in such proportions as you like. Some of my neighbors omit half of the coffee; some more."

Barley Coffee.—Take common barley, or the skinless if it can be obtained, roast as you would coffee, and mix in such proportion as suits your taste. It is very good.

Pea Coffee.—It is probably known to many that a very large per cent. of the ground coffee sold at the stores is common field peas roasted and ground with the coffee. There are hundreds of thousands of bushels of peas annually used for that purpose. Those who are in the habit of purchasing ground coffee can do better to buy their own peas, burn and grind them, and mix to suit themselves.

Carrot Coffee is recommended by an exchange. Cut up, dry and grind, and mix with coffee in quantities to suit the taste.

THE WOMEN OF A NATION.—I do not hesitate to say that the women give to every nation a moral temperament, which shows itself in its politics. A hundred times I have seen weak men show real public virtue, because they had by their sides women who supported them, not by advice as to particulars, but by fortifying their feelings of duty, and by directing their ambition. More frequently, I must confess, I have observed the domestic influence gradually transforming a man, naturally generous, noble and unselfish, into a cowardly, common-place, place-hunting self-seeker, thinking of public business only as a means of making himself comfortable—and this simply by contact with a well-conducted woman, a faithful wife, an excellent mother, but from whose mind the grand notion of public duty was entirely absorbed.—*Tocqueville.*

THE CATTLE MARKETS FOR MARCH.

The following is a summary of the reports for the four weeks ending March 20, 1862:

NUMBER AT MARKET.

	Cattle.	*Sheep.*	*Shotes.*	*Live Fat Hogs.*
February 27	778	2850	475	Few.
March 6	1036	4030	500	—
March 13	1559	1925	700	—
March 20	1217	1158	1040	150
Total	4590	9963	2715	150

PRICES.

	Feb. 27.	*Mar. 6.*	*Mar. 13.*	*Mar. 20.*
Beef cattle, ℔ lb	5 @6¼c	5 @7	5 @6¼	5 @6¼
Sheep, live weight	4¼@5¼	4¼@5¼	4¼@5¼	4¼@5¼
Swine, stores, wholesale	4 @5	4¼@5¼	3¾@5¼	3¾@5
" " retail	5 @6	4¼@6	4¼@6¼	4¼@6
Live fat hogs	4¼@5			4¼

REMARKS.—Most of the cattle at market during the month were offered for sale as beef. Of the 4590 cattle reported above as the total for the four weeks, 2480, or more than one-half, were from the West. During the first half of the month the market showed an upward tendency, while for the last half it has been downward. This change was more marked in mutton than in beef, produced partly at least by the large arrivals of heavy sheep from the West, at the market of March 6th. Milch cows sold readily until the last week, March 20, when the market was quite dull.

CHICKENS VS. CHINCH BUGS AND PLUM WEEVILS.—We see it reported in the *Southern Planter*, that a hen and chickens placed in a coop in the corner of a wheat field, where the chinch bug had commenced its ravages, proved to be an effectual check upon the insects thereabouts, though they did considerable injury out of the range of the chickens.

The chinch bug is only one of the destructive insects which chickens are ever ready to pick up. In our yard stands a black-heart cherry tree, the fruit of which was quite wormy last year,—as is often the case with this variety. This spring we placed a chicken coop with its occupants near the tree, and secured a full crop of fruit, showing no appearance of worms. The insects, as they emerged from the ground in winged form, were so effectually picked up that they failed to deposit their eggs in the fruit. Of course there will be a short crop of *worms* next season.

NEW SEEDLING POTATOES.—In another column, Mr. CHARLES W. GLEASON, of Holden, in this State, advertises several varieties of new seedling potatoes, some of which we have seen, but not tasted. They are very handsome, and especially so is the *Garnet Chili*. It is of medium size, flattish, and the eyes are nearly on a level with the general surface of the potato. This is always a recommendation, as it is difficult to prepare a potato for the pot where its eyes are deeply set. Mr. Gleason has given much attention to the matter of introducing new varieties of good potatoes, and among them we shall undoubtedly find some that will be a valuable addition to our present list.